CURRENT NEWS

August 8, 1914

Imperial Valley Water Supply Subjected to State Regulation

California State Railroad Commission Decides that Development Company Is Amenable as a Public Utility

The California State Railroad Commission on July 30 decided that the California Development Company, which supplies the Imperial Valley with water taken from the Colorado River, is a public utility and as such is subject to the jurisdiction of the commission.

Three individual but interlocking complaints were made against the development company and W. H. Holabird, receiver, to the effect that the company refused to deliver water to persons entitled thereto, that it claimed the right to deliver water or not as it saw fit, and that it discriminated unjustly in charges for water. One of the three complaints was made by the president of the board of trustees of the town of Holtville, Cal.

The development company held that it was not a public utility subject to the jurisdiction of the commission, that its water system had never been "held out" as serving the public, that it has never been "dedicated" to public use, and that the constitutional and statutory provisions of the State applied to the system would amount to a "taking" of property, and that such application would violate the fourteenth amendment of the Federal Constitution.

In overruling these contentions the commission decided that this company supplies water for power, irrigation and domestic use directly to portions of the public and indirectly to the entire public of Imperial Valley for compensation, and that it is not a mutual water company but is a corporation organized for profit; also, that the company has a monopoly on the business of transmitting water from the Colorado River (which is the Imperial Valley's only source of water supply) for all purposes in that valley.

The California Development Company and W. H. Holabird are given twenty days in which to satisfy complaints filed with the commission or to submit an answer thereto. It is said that the question of jurisdiction of the commission will be appealed to the State Supreme Court.

Minneapolis Adopts Building-Height-Restriction Ordinance

An ordinance limiting the heights of buildings in Minneapolis to 170 ft., or twelve stories, was passed by the city council July 31. Although a committee representing the Civic and Commerce Association had advocated a limit of 140 ft., general satisfaction is felt with the action finally taken.

Victor F. V. de Brauwere, an architect, states that practically only one building, the new Sioux National Bank, will be above the maximum limit.

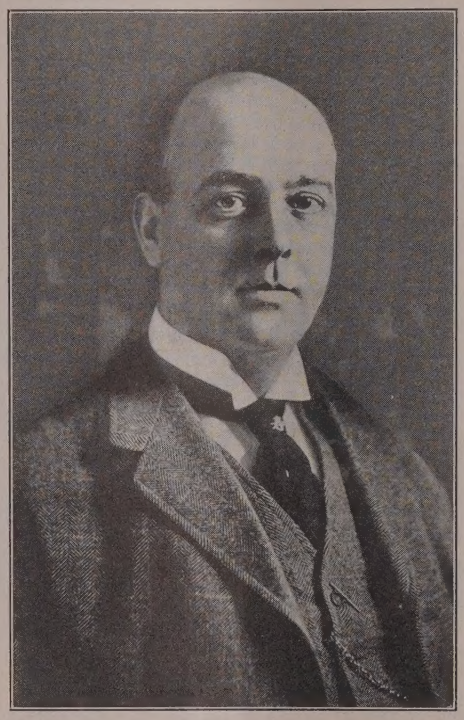
Receivership for Chicago, Peoria & St. Louis

The Chicago, Peoria & St. Louis Railroad, extending from Peoria, Ill., to St. Louis, with a branch from Peoria to Jacksonville, went into receivers' hands July 31, following its failure to pay interest due June 1 on $2,000,000 in bonds. This is the road's third receivership, the previous two being in 1896 and 1909. The road operates 245 mi. of line.

Frederic A. Delano Nominated for Federal Reserve Board

To take the place of Thomas D. Jones, the Chicago banker whose name was withdrawn as a candidate for the Federal Reserve Board, President Wilson has nominated Frederic A. Delano, the well known engineer and railroad official, now president of the Chicago, Indianapolis & Louisville Railway.

Born September 10, 1863, at Hongkong, China, Mr. Delano received his education in the United States, graduating from Harvard



FREDERIC A. DELANO

University in 1885. The foundations for a versatile career were laid in that year when he entered the employ of the Chicago, Burlington & Quincy Railroad as machinist's apprentice. From 1887 to 1889 he was in charge of railway inspection tests, for the next year was assistant to the second vice-president, and then for nine years superintendent of freight terminals at Chicago. Two years as superintendent of motive power were followed by four as general manager, terminating in 1905.

Mr. Delano was then for a short period consulting engineer for the U. S. War Department and Philippine Commission, after which he returned to railroad service as vice-president of the Wabash Railroad, becoming president October 5, 1905. In December, 1911, this road was forced into receivership, and Mr. Delano was appointed receiver, a position from which he resigned two years later to become president of the Chicago, Indianapolis & Louisville Railway. From 1905 to 1908 he was president of the Wheeling & Lake Erie Railroad and in 1905 he assumed the additional position of president of the Wabash-Pittsburgh Terminal Railway.

Plan Canadian Power Plant

A Canadian syndicate is seeking an electric-power contract with Edmonton, Alta., a city of about 30,000 population. If the contract can be secured, it is proposed to construct a 40,000-hp plant in the Saskatchewan River west of the city. A New York company has also submitted a somewhat similar proposition.

Amended Water-Power Bill Passes House of Representatives

Adamson Measure Providing Federal Regulation Is Approved by Vote of 123 to 45 against Opposition of National Conservation Congress

The House of Representatives on Aug. 4 passed the amended Adamson bill, regulating the development of water powers, by a vote of 123 to 45. The National Conservation Congress had bitterly opposed the bill in its original form, claiming that no payment to the public was stipulated, that the measure did not protect consumers within the States from extortion in case the State Governments failed to act, it prevented taking back public rights, even when "the ostensible fifty-year period of the grant has expired," and it imposed severe conditions of amendment. Although the amendment, which was supported by the Pinchot conservationists, authorizing the Secretary of War to assess "reasonable annual charges" for the use of water in navigable streams by power companies, appeared to obviate the first of these objections, the protesting body reaffirmed its hostility, stating that the bill was still much more favorable to the water-power interests than to the public interest.

At this time in Washington it is not believed that the bill will pass the Senate at this session of Congress. It is the present intention of the Senate not to pass legislation at this session which it is not especially urged by the President to pass and inasmuch as the amendment is not wholly approved of by the administration, it is not likely that the President will urge the passage of the Adamson bill.

Garbage-Disposal Plan for Toronto Rejected

An optional garbage-disposal plan, evolved for the citizens of Toronto, Can., to carry out the command expressed in a vote on Jan. 1, 1913, approving establishment of an adequate system, has been rejected by the city council. Alternative specifications and figures for disposal by incineration and by reduction were given in the proposal, which is now apparently dead.

Snoqualmie Tunnel Completed

The railroad tunnel through the Cascade Mountains at the summit of Snoqualmie Pass, in Washington, has been completed with the enviable record of "no lives lost." The tunnel was driven by the Chicago, Milwaukee & St. Paul Railroad, of which C. F. Loweth is chief engineer, to lower grades and lessen the distance over the range and to eliminate the embarrassment of snow blockades. It is 12,000 ft. long.

City Managers' Conference Postponed

A conference of city managers throughout the country had been planned for Aug. 4, 5 and 6 in Springfield, Ohio, but it was found advisable to delay the date of the meeting until after the rush construction period. Charles E. Ashburner, city manager of Springfield, has sent blank ballots to fifteen cities asking preferences as to dates and subjects, and all interested are requested to correspond with him. The conference will probably be held late in the Fall.

Commission Recommends Extensive Railroad Changes at Springfield, Massachusetts

The Municipal Transportation Commission of Springfield, Mass., has submitted to the City Council a comprehensive report on the railroad problems of the city. The recommendations of the commission include remodeling of the union passenger station on its present site; construction of a new highway bridge across the Connecticut River about 400 ft. south of the old toll bridge, with approaches from Court and Worthington Streets and stairways from Vernon Street; construction of freight facilities for the New York, New Haven & Hartford north of Cypress Street, elevation of the Boston & Albany to provide suitable clearance over the proposed New Haven freight tracks and to eliminate the dip in Main Street, and elevation of the Boston & Maine at Clinton Street. The estimated cost of the improvement is $2,783,000, exclusive of land damages and the highway bridges.

Plan B is the one favored, being one of three considered. Plan A would move the New Haven tracks across the Connecticut River by a bridge at Pecousic and bring them back by a bridge parallel to the Boston & Albany bridge. This plan would cost about $5,600,000. As neither the move across the river nor the relocation of its freight facilities north of the Boston & Albany was pleasing to the New Haven, that company had submitted Plan C, which would retain the New Haven freight yard at its present site and would take care of the east approach to the highway bridge over the river by widening and raising Vernon Street and making other extensive street changes. No estimate was offered for this plan.

Edward P. Butts, chief engineer of the American Writing Paper Company, of Holyoke, Mass., is a member of the commission, which includes Mayor John A. Denison, Col. Stanhope E. Blunt, Alderman Harry G. Webster, Councilman Edward T. Broadhurst and Judge Marcus P. Knowlton.

Canada Plans Water-Power Exhibit for Panama-Pacific Exposition

The Dominion Government of Canada is reported to have completed plans for an exhibit at the Panama-Pacific International Exposition, which includes an extensive display of hydroelectric plant models. Models of a large number of typical installations representing the low-head plants of eastern Canada and the high-pressure plants in British Columbia are to be arranged in a semicircle, it is stated, behind which will be a representative landscape painting. The painting, which is to be 9 ft. high and 75 ft. long, will be executed by a noted landscape artist of Toronto.

Plan for South Brooklyn Marginal Railway Adopted

The amended plan of the marginal railway for South Brooklyn, New York, was adopted July 30 by the Board of Estimate and Apportionment of New York City. Owing to the European war situation, however, the work will be held up indefinitely, together with all other improvements planned for the city except the dual subway system.

Remove Old Railroad Bridge

The old Pennsylvania Railroad bridge spanning the south branch of the Chicago River, in Chicago, was removed July 29 and the new vertical lift bridge lowered into place ready for trains to cross. Navigation at this point was stopped for several hours while a large force of men removed the old structure by lowering it in sections to scows.

New York City Police Department Experimenting with Fifth Avenue Traffic Regulation

Seeking to facilitate traffic movement on Fifth Avenue, a broad north-and-south thoroughfare, the New York City Police Department has recently been experimenting in the half mile between Fortieth and Fiftieth Streets. The problem for all the tests was to move the heavy traffic, principally automobile, simultaneously over this interval in the busy afternoon hours. At each intersection a traffic policeman took orders from a signal flag mounted on a pole in the center of the avenue at Forty-fourth Street. In the first tests arbitrary intervals were chosen—50 sec. for cross-town traffic, succeeded by a period of 2 min. and 10 sec. for Fifth Avenue traffic.

Later a change was made by choosing the policeman at Forty-second Street, the principal cross-town thoroughfare in the district, as the key to the system. This officer adjusted the two rectangular movements according to his own judgment, communicating his decisions to the main signalman at Forty-fourth Street, who relayed the signals. Left-hand turns were not allowed during the tests.

Though it is stated that the systems tested had aided traffic, the Police Department will carry them further before a decision is made. It has also been suggested that safety zones be established at each street intersection and that all traffic, unless it is going straight, move around these centers counterclockwise, branching to the right at the desired points. In practice, of course, this system would also be subject to some regulation.

Missouri Cities Protest Against Waterworks Regulation

St. Louis, Kansas City and a score of other Missouri cities owning their own waterworks protested through representatives at a meeting held July 28 by the State Public Service Commission to consider its recent order establishing standards of rates and service for all gas, electric and water utilities operating in the State. Water Commissioner Edward Wall of St. Louis told the commission that the order should be very greatly modified as applied to waterworks in general and should exempt all the municipal owned plants from any general order of that body whatsoever. He said that to supply one community with potable water was a problem peculiar to that locality, and the solution of it one place would not answer in another.

Kansas City officials stated that 95 per cent of the Kansas City consumers are using meters, while in St. Louis 93 per cent of the consumers are on a "flat rate" basis. It would require an outlay of $250,000 for the Kansas City Water Company to buy all of the meters now in use. Another point objected to was the payment of 6 per cent interest to depositors. This would require an outlay of $6000 annually, as there is on deposit from consumers $100,000 in cash.

Water-Pollution Suit Brought by State of Oklahoma

Suit has been filed by the county attorney of Nowata County, Oklahoma, for the State against several manufacturing companies with plants in Coffeyville, Kan., charging them with discharging poisonous water into the Verdigris River.

The companies named are the Cudahy Refining Company, the North Star Manufacturing Company, the Kansas Refining Company and the National Refining Company. They are accused jointly of discharging a total of 1,700,000 gal. of poisonous water from the plants into the river, causing the ruin of crops, killing fish and making the water unfit for stock or for domestic use.

San Francisco Drafts Offer to Purchase Water System of Private Company

The city officials of San Francisco, after deliberations extending over several months, have drafted the terms of an offer to purchase the holdings of the Spring Valley Water Company. It is unofficially announced that the sum of $34,500,000 is to be the price named by the city for such properties as are included in the tentative offer.

The advisory water committee of the city was authorized on June 15 to obtain from the water company a statement as to whether or not the company would accept an offer, if made by the city, to purchase the water-supply system under terms named by the city. Pursuant to this authorization the committee transmitted to the company, on July 28, an inquiry as to whether an offer would be accepted, naming in detail the terms which such an offer would embody, if made, but not stating what purchase price would be tendered.

Under the terms of the offer drawn up by the city the water company is to retain title to the Pleasanton lands, except that the city is to be allowed to take water therefrom to the extent of 15,000,000 gal. per day and is to have certain rights-of-way for pipe lines. It is also stipulated that the city shall reimburse the company for capital expenditures made between Jan. 1, 1913, and the date of the offer to purchase and that judgment is to be entered in the rate suits now pending in the United States District Court between the city and the company in such a way that the company shall take only half of the moneys impounded therein and the balance shall be returned to the rate payers or paid into the city treasury.

The communication addressed to the company is signed by many city officials. The water company has indicated its willingness to accept the offer.

New Massachusetts Health Department

A new State Department of Health has been created to succeed the old Massachusetts State board. The new department consists of a single commissioner as executive officer and a council of health, made up of the commissioner and six other members.

The commissioner, appointed by the Governor, has a term of office of five years and an annual salary of $7,500. His powers are to administer the laws relative to health and sanitation; to appoint and remove, with the approval of the council, directors of divisions, district health officers and other members of the staff; to fix their compensation; to submit to the council an annual report, and to perform all executive duties formerly required of the State Board of Health. He must give his whole time to his official duties.

The councilmen are appointed by the Governor for three-year terms. At least three must be physicians. Their compensation is $10 per day while in conference, and traveling expenses. Their duties are to make and promulgate rules and regulations, hold hearings, take evidence in appeals, consider plans and appointments and submit an annual report.

The law calls for eight health districts, with a district officer for each. He shall give his whole time to the work and his compensation shall not exceed $3,500 per year.

Grand Trunk Pacific Pier at Seattle Destroyed by Fire

Fire destroyed the pier of the Grand Trunk Pacific Steamship Company at Seattle, Wash., July 30, and damaged other waterfront property, causing a loss estimated at $500,000. The Grand Trunk Pacific's loss is said to be about $350,000.

Where the Wheel-Tax Street-Repair Fund Goes in Chicago

To show what is being done in Chicago with the $650,000 wheel tax fund in repair of pavements, Walter Leineger, superintendent of streets, piloted about 150 representatives of motor clubs and vehicle associations on a 50-mi. inspection trip July 30. In addition to viewing the repair of various types of streets, stops were made at the municipal stationary plant at Fifteenth Street and the new Warren asphaltic concrete portable plant at Ninety-fifth Street and Vincennes Avenue. The capacity of the latter plant is 2500 sq. yd. of 2-in. top in a 9-hr. day. This is done at a cost of 60 cents per square yard and is estimated to increase the life of a macadam road without repairs five years and twenty years with reasonable repairs. On Western Avenue, the principal connection between the Chicago boulevard system and the Lincoln Highway at Chicago Heights, several miles of old macadam road 18 ft. wide have been topped this year.

LAYING TWO-INCH TOP OF ASPHALTIC CONCRETE OVER OLD MACADAM PAVEMENT

Work of the repair forces is so organized that a great proportion is done early in the season, so that traffic will have the benefit of the repairs the same year. About $450,000 has been spent since Jan. 1. Costs per square yard are: 89,123 sq. yd. of asphalt, 95 cents; 30,440 sq. yd. of brick, $1.06; 30,900 sq. yd. of granite, 55 cents, and 376,960 sq. yd. of macadam, 20 cents. In mileage the repairs this year so far are: Asphalt, 100; brick, 35; granite, 10; macadam, 300, and asphaltic concrete, 5.

Seattle Water Pipes Suffer from Electrolysis

Serious consideration is being given the problem of protecting underground conduits in Seattle from electrolysis. The city electrician has reported that grounded electric current from the street-railway systems is injuring the water mains, and conferences between the various city department heads and representatives of the traction companies are being held to formulate a method of combating the evil.

Floating Caisson for Panama Locks Is Launched

The steel lock-entrance caisson for emergency use on the Panama Canal which has been under construction at the Union Iron Works in San Francisco was successfully launched July 26. It is to be towed to the Isthmus in about a month, and will be delivered to the Government on schedule time. The caisson, which has a pear-shaped cross-section and is said to be the largest of its kind ever built, is 113 ft. long, 36 ft. wide and 65 ft. deep. Some 650 tons of the concrete ballast was placed in its bottom before launching and 200 tons more will be required before the structure is delivered. A complete description of the caisson was published in the Engineering Record of Jan. 3, 1914.

St. Louis Loses Compulsory Water-Service Suit

An adverse decision has been rendered in the first suit brought by the city of St. Louis to enforce the provisions of an ordinance compelling owners of tenement property to maintain hydrants and running water on each floor. The health department had prosecuted a case against a real estate company owning an old tenement property whose water supply, used in common by all tenants, was obtained from hydrants in the back yards.

The city contended that hydrants should be supplied to the second floor, but Judge Sanders of the Second District Police Court held that in such cases the ordinance, which was approved March 5, 1913, was unreasonable.

New Construction Activities

While it is recognized that out of the European turmoil will undoubtedly come a vigorous and profitable business movement in this country, it is likely that for a time construction enterprises may be curtailed. The New York City officials have made public a determination to hold in abeyance all new enterprises, such as construction of two court-houses, street improvement, and the building of the South Brooklyn marginal elevated freight railroad, projects totaling $50,000,000, but the dual subway system and the dock work will not be interfered with.

On the Pacific Coast the normal activity persists. Large sewer projects at Vancouver, B. C., and Vernon, B. C., preparation for bridge building at Seattle and Portland, harbor improvement at Portland, San Francisco and Los Angeles, a river-diversion project near Tacoma and highway construction in California will together probably cost $4,000,000. In Maine, Illinois and New York bids for extensive highway contracts are ready or desired, New York leading with a $570,000 letting. Two more contracts, aggregating $227,000, on the Passaic Valley (N. J.) sewerage project have been let. A bridge is to be built at Kansas City, Mo., for $479,700. Bids for 2,500,000 bbl. of cement, to be furnished in installments through four years, for the Welland Canal have been asked. Philadelphia is advertising her 1915 garbage-disposal contract.

Highways and Paving

Four State highway departments contributed to the week's construction news. In California bids have been asked for the building of four roads, the total cost of which will be around $250,000. In Maine bids on six roads, to cost $160,000, have been opened. Illinois has advertised two lettings, both for State-aid work—one lot dated Aug. 11 to cost, according to the engineers' estimates, $79,000; the other, dated Aug. 19, to cost $53,000. The fourth State is New York, which has opened bids, the sum of the low totals for which is $567,000. This State also opened bids for repairs aggregating $23,000. Philadelphia has asked new bids on a considerable amount of paving. At Regina, Sask., contracts totaling $122,650 have been awarded. Large bond issues for street improvement have been voted at Greensboro, N. C., and Saanich, B. C.

Water and Sewers

Bonds for $250,000, to build a filtration plant, have been voted at Lowell, Mass., and Atlanta, Ga., is considering extending its filtering system at a cost of $200,000. Bids are wanted at Toledo, Ohio, on 6000 tons of steel pipe for water-main construction. Kittaning, Pa., is preparing to vote on the question of issuing $112,000 bonds for the construction of a waterworks system. At Lawrence, Kan., a new system, to cost $350,000, is also projected. The Lehigh Coal & Navigation Company is ready to begin work on a $150,000 reservoir at Hauto, Pa. Citizens of Warrentown, Ore., have voted $150,000 worth of bonds to construct a gravity water system. It is reported that a filter plant and a power house, to cost $200,000, are to be built at Zanesville, Ohio.

Two more contracts on the Passaic Valley (N. J.) sewerage project are ready for letting; the low bids are $55,420 and $172,180. A large Pacific Coast contract is about to be awarded—constructing a section of a sewer at Vancouver, B. C., the low bid for which was $309,052. Bids for building a 20-mile system at Argenta, Ark., are being called for; the engineer's estimate is $300,000. Vernon, B. C., is planning improvement to the existing system, involving the erection of a new disposal plant, the whole to cost about $100,000. A contract has been awarded at $115,000 at Houston Heights, Tex., for laying 30 mi. of sewers.

Bridges

As foreshadowed in these columns last week, the contract for building a concrete viaduct in Yolo County, California, as part of the State highway system, was let at the low figure of $239,704. Three other large contracts have been let—for building a bridge over the Kaw River at Kansas City, Mo., for $479,700; a highway bridge over the Erie Canal at Amsterdam, N. Y., for $147,000, and a structure for the Chicago & North Western Railroad, at Manitowoc, Wis., for $180,000. Plans are ready at Seattle for two bascule bridges, costing $900,000, and Multnomah County, Oregon, is in the market for $625,000 worth of bonds to finance its share of the interstate bridge. The advertisement of Vancouver, Washington, the other party, was noted last week. It is reported that bids are wanted at Indianapolis for erecting a steel bridge over the White River. Construction of $350,000 worth of bridge structures is to be undertaken at Norfolk, Va. A bridge company is considering erecting a $400,000 viaduct at Keokuk, Iowa. Bids are desired for constructing a bridge over the Erie Canal at Yorkville, N. Y.; the estimated cost is $108,000. Reconstruction of the Queensboro Bridge, New York City, to accommodate heavy train serv-

ice, estimated to cost about $2,000,000, has been favorably reported, but will probably be postponed indefinitely on account of the European disorder. Plans are being prepared for a $900,000 bridge in Newark, N. J.

Hydraulic and Kindred Development

Portland, Ore., is about to begin construction of a dock costing about $250,000. Among other Pacific Coast activities in this field are preparations for a large dock and wharf extension at Los Angeles, the signing of contracts for an extensive wharf-improvement program at San Francisco (noted last week) and the beginning of bulkhead augmentation at Seattle. Contracts for levee improvement near New Orleans, aggregating about $135,000, have been let, and bids for placing about 430,000 cu. yd. of material for similar work are desired. Another levee improvement—to protect the country below Eagle Lake, Texas, and to cost $100,000—is under consideration, and $350,000 in bonds have been voted at Helena, Ark. The low bids for two New York State barge-canal contracts for reinforcing and otherwise improving various movable dams on the Mohawk River were $60,986 and $265,954. Of unusual interest is the advertisement for bids for furnishing 2,500,000 bbl. of cement required for the construction of the Welland Ship Canal. This amount is to be supplied in installments through a period of four years. Plans are being prepared for a $250,000 irrigation canal near Duchesne, Utah, and bids have been asked for dredging and bulkhead construction to be done in connection with a river-diversion project near Tacoma, Washington.

Miscellaneous

In the general building field there is normal activity. Contract for erecting a fireproof office and warehouse building in Richmond, Va., at a cost of $175,000, has been awarded. Bids are asked by the Illinois State Board of Administration for the erection of four hospital buildings, to be built within an appropriation of $490,000. Bids are reported desired for building a $900,000 high school in Philadelphia. Other large building projects under consideration follow: Cement factory at Haverhill, Mass., $250,000; mill building at Baltimore, Md., $200,000; office building at Waterloo, Ia., $250,000; school at Alexandria, La., $125,000; college at Notre Dame de Grace, Que., $750,000; almshouse at Bridgeport, Conn., $175,000; factories at Hoboken, N. J., $1,000,000; school at Grand Forks, N. D., $200,000; and a factory at San Springs, Okla., $250,000. Plans for two college buildings at Spokane, Wash., to cost about $300,000, are being prepared.

Philadelphia's garbage-disposal contract for 1915 is now under consideration; bids have been advertised for as desired until Oct. 16. Several railway projects have been reported. Contract for construction of the first 20 mi. of the new Grand Marais & Northwestern Railroad, to be built between Grand Marais and Ely, Minn., has been awarded, and construction of a 60-mi. electric railway at Williston, N. Dak., is about to be started. In addition to the award of a contract for building an electric-railway carhouse in Vancouver, B. C., to cost $300,000, two terminal improvements are projected—one for the Northern Ohio Traction Company at Akron, Ohio, to cost $250,000, the other for the Nickel Plate Railroad Company at Cleveland, Ohio, to cost about $600,000.

Personal Notes

E. R. Candor, superintendent of the electric light and water plant at Searcy, Ark., has been appointed city engineer.

F. L. Beal has been made engineer of valuation for the Louisiana & Arkansas Railway, with headquarters at Stamps, Ark.

Frank C. Havens, president of the People's Water Company, of San Francisco, has resigned, and J. Y. Eccleston has been named in his place.

Dr. T. Arai and Dr. H. Sanalda, engineers in the service of the Japanese Government, have been inspecting the work on the New York State barge canal.

Jesse K. Giesey has resigned from the staff of Hering & Gregory, consulting engineers, of New York City, to take charge of sewer extension work for York, Pa.

Arthur F. Ballou, superintendent of the Providence (R. I.) Water Department, has resigned to accept a position with the National Board of Fire Underwriters.

D. H. Martin, division engineer of the Pittsburgh & Shawmut Railroad, has been made chief engineer of the new Welland ship canal, with office at Allanburg, Ontario.

J. S. Stevens has resumed general consulting practice, specializing in hydraulic installations, irrigation and water power projects, with offices in the Spalding Building, Portland, Ore.

W. K. Winterhalter, of Berry & Winterhalter, consulting engineers and agriculturists, of San Francisco, has been retained as consulting agriculturist by the Spreckels Sugar Company, of San Francisco.

Chester & Fleming, consulting engineers, of Pittsburgh, have been engaged to prepare plans for a mechanical filtration plant at Zanesville, Ohio. The members of this company are John Needels Chester and Thomas Fleming, Jr.

Thomas Turnbull, for the last four years connected with the Canadian Pacific and the Hudson Bay railroads, has been appointed assistant chief engineer of the Canadian Northern Railway, with headquarters in Winnipeg.

Carleton Scott, assistant in the city engineer's office at Providence, R. I., has been elected superintendent of the water department, succeeding Arthur F. Ballou, whose resignation is noted elsewhere in these columns.

R. J. Windrow, county engineer of McLennan County, Texas, has refused an invitation to become instructor of highway engineering at the Agricultural and Mechanical College of Texas, wishing to remain until his present work is completed.

John C. Neale has resigned his position as assistant general manager of sales and structural engineer for the Carnegie Steel Company, of Pittsburgh, to become president and general manager of the Central Steel Company, of Massillon, Ohio.

Prof. R. E. Chandler, dean of the engineering division of the Oklahoma Agricultural and Mechanical College, has resigned his position to become head of the mechanical engineering department at the New Hampshire College of Agriculture and Mechanical Arts, at Durham, N. H.

James L. Ferebee, assistant engineer in charge of construction of the drainage and water system of Atlantic City, N. J., has been elevated to the position of chief engineer. Before coming to Atlantic City Mr. Ferebee was connected with the water department in Wilmington, Del.

O. H. Ammann, assistant chief engineer on construction on the New York Connecting Railway, sailed Aug. 5 for Switzerland, to take his place as first lieutenant of infantry in the Swiss army. Mr. Ammann is answering a call for the reserves, who are to aid in protecting Swiss territory from invasion.

R. L. Dobbin has been appointed water works superintendent for the Peterboro Utilities Commission, Peterboro, Ont. Mr. Dobbin was formerly resident engineer on the Moose Jaw water supply for two years during construction. He was also with the city of Moose Jaw in the water works department.

R. J. Finch has been appointed division engineer of the Eastern Division, Department of the State Engineer of New York. Mr. Finch was graduated from Rensselaer Polytechnic Institute in 1906, and was with the New York, Ontario & Western Railway and the Erie Railway for the year following. He has been in the State Engineer's Department since January, 1908, and for the past three years has been supervising engineer of the eastern division.

R. W. Perry, chemist and engineer of tests for the Michigan Central Railroad, has engaged upon a general practice in chemical and physical testing and inspecting. Mr. Perry was graduated from the University of Pittsburgh in 1903. The following year he was assistant chemist for the Gulf Refining Company of Port Arthur, Texas. From 1904 to 1906 he was cement inspector for the Baltimore & Ohio Railroad, and from 1906 to 1910 he was chemist for the Detroit River Tunnel Company. Since 1910 he has been chemist and engineer of tests for the Michigan Central Railroad Company, and has also conducted inspections for the Cleveland, Cincinnati, Chicago & St. Louis and the Lake Erie & Western.

Obituary Notes

Charles F. Walters, chief assistant engineer of the highway department in Jacksonville, Fla., died July 22.

Nathan B. Whitfield, civil engineer, died July 20 at his home in Portland, Ore. Mr. Whitfield, who was born in 1835 in Alabama, was graduated from Chapel Hill College, now the University of North Carolina, and engaged for several years in engineering work in Alaska and Oregon.

John B. Allan, mechanical engineer, until recently vice-president and general manager of the Allis-Chalmers Manufacturing Company, died July 28 at his residence in Chicago. He was born in Davenport, Ia., in 1860 and studied engineering at the Worcester Polytechnic Institute at Worcester, Mass. Mr. Allan had been connected with the Allis-Chalmers Company since 1881.

Charles H. Cooke, a veteran civil engineer, died Aug. 1 at his home in New York City. Born in 1850, Mr. Cooke engaged in railroad engineering at an early age, subsequently passing a great portion of his life in this field. At various times, however, he confined himself to office practice, and at others held positions with power companies. In his later years he maintained an active interest in hydroelectric enterprises.

Civil Service Examinations

Examinations Previously Announced

Date		See Eng. Record
Aug. 10	Principal assistant, Bureau of Surveys, Philadelphia	July 25
Aug. 19	Junior civil engineer, Interstate Commerce Commission, U. S.	Aug. 1

Coming Meetings of National Engineering Societies

AMERICAN SOCIETY OF CIVIL ENGINEERS. Secretary, Charles Warren Hunt, 220 West 57th St., New York. Meets first and third Wednesday, except in July and August.

AMERICAN SOCIETY OF MUNICIPAL IMPROVEMENTS. Secretary, C. C. Brown, Indianapolis, Ind. Next convention will be held Oct. 6 to 9, inclusive, at Hotel Somerset, Boston, Mass.

AMERICAN SOCIETY OF ENGINEERING CONTRACTORS. Secretary, J. R. Wemlinger, 11 Broadway, New York. Meets second Thursday in New York, except in July and August.

AMERICAN WATER WORKS ASSOCIATION. Secretary, J. M. Diven, 47 State St., Troy, N. Y.

AMERICAN SOCIETY FOR TESTING MATERIALS. Secretary, Prof. Edgar Marburg, University of Pennsylvania, Philadelphia.

SOCIETY FOR PROMOTION OF ENGINEERING EDUCATION. Secretary, Dean F. L. Bishop, Engineering Dept., University of Pittsburgh, Pittsburgh.

CANADIAN SOCIETY OF CIVIL ENGINEERS. Secretary, Clement H. McLeod. Meets Thursdays, in Montreal, except during the months of May to September, inclusive.

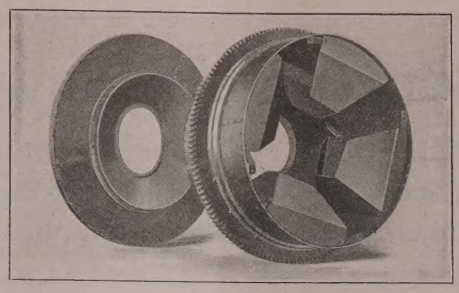
INTERNATIONAL IRRIGATION CONGRESS. Twenty-first session will be held Oct. 5 to 9, inclusive, at Calgary, Alberta, which is the address of the secretary.

Non-Tilting Mixer with Concave-Face Drum

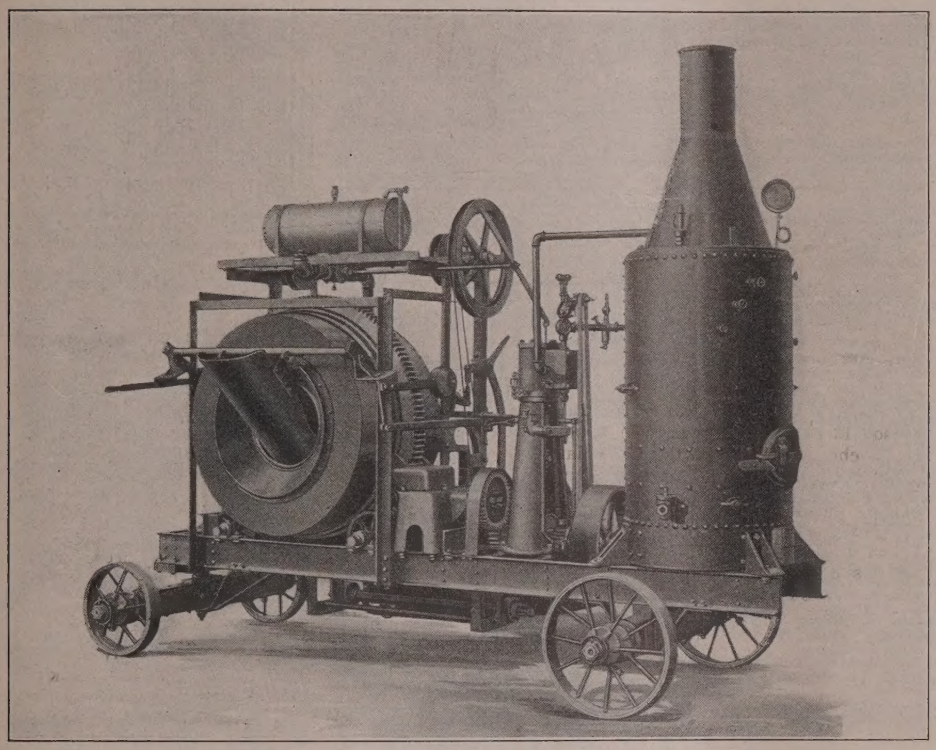
A non-tilting mixer having an unusually long, steep chute, projecting, in use, two-thirds of the way into the drum, has recently been placed on the market. The length and angle of the chute are made possible by using a concave-face drum, and the design is believed by the manufacturer to have made possible a rapid mixer whose action is not marred by splashing.

There are four scoop-shaped blades centrally placed in the drum, with sides converging with equal angularity, pouring the material toward the center. It is claimed that the action of the cylindrical surface of the drum combined with the deep converging sides of the blades gives a reciprocal sidewise movement of the batch as long one way as the other and also aids in giving a clean and rapid discharge. The ring encircling the middle of the drum, which, incidentally, is offset on the truck to balance the weight of the loader, combines the main driving gear and main roller tracks in one solid casting, insuring alignment of all parts. On all self-charging outfits the discharge is controllable from either feed or discharge side. The overhanging drum heads act as a shield for the main rollers, protecting them from dirt or other foreign matter.

The machine is called the Smith-Chicago mixer and is manufactured by the T. L. Smith Company, of Milwaukee.



MIXER DRUM, SHOWING SCOOP BLADES



NON-TILTING CONCRETE MIXER WITH CONCAVE-FACE DRUM

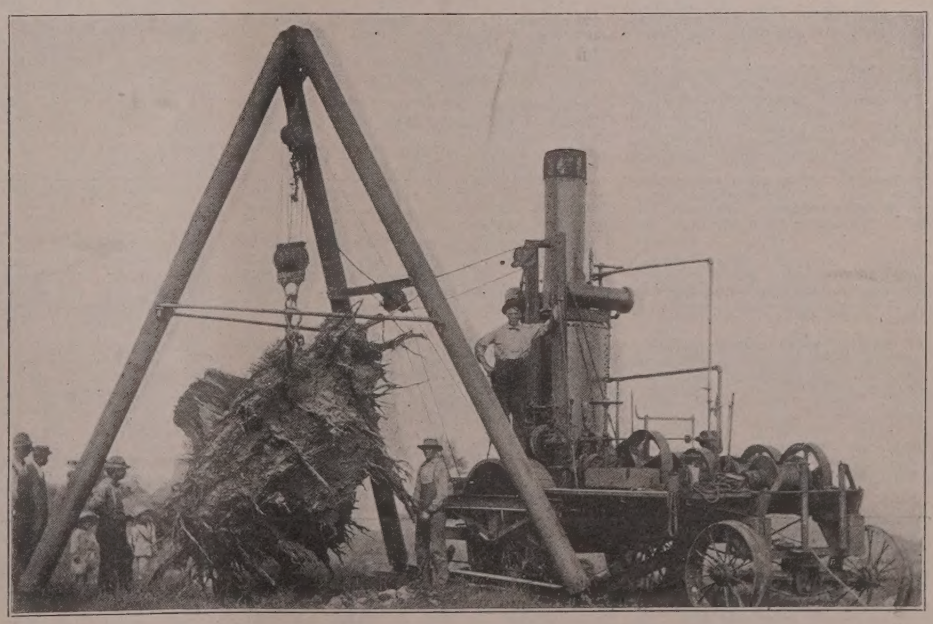
Traction Stump Puller and Grubber

Designed for use in developing the "logged-off" land areas of the country, a portable land-clearing machine equipped to uproot the largest stumps, though itself no heavier than the ordinary traction engine, has just been placed on the market. The controlling company, the Pioneer Land Clearing Machine Company, of Chicago, believes this is the first light equipment capable of so extensive a use.

Two drums mounted on the front end of the truck, as shown in the accompanying illustration, do the work for ordinary cases, being run from a 20-hp steam engine, which also moves the equipment when desired. The power is geared down to give a vigorous pull. Plow steel ⅝-in. wire ropes winding on these drums will uproot all the lighter growth, the engine being stationed between two stumps, one serving as an anchor, the other as a station for two head blocks guiding the ropes. These light ropes, the preferred length of each of which is 250 ft., work simultaneously, covering at one setting a circle containing more than 3 acres. The drums give a direct pull of 7 tons, which, it is stated, suffices for stumps up to 15 in. in diameter, and by doubling back through a single block 20-in. trunks may be handled.

When larger stumps are to be removed, a large steel tripod swung from the side of the engine is called into play. When the three legs are set on the ground the cable from one of the main drums is led through a pair of 5-sheave blocks suspended from the apex, as shown in the cut, and the end is made fast to the stump. When the operation is completed, an auxiliary drum mounted at the side of the truck raises the off leg of the tripod and the machine moves to the next stump.

Another use may be served by the tripod. The rope is run through the block at the top and the tripod is guyed to a stump in the rear. The stumps can then be skidded in and readily dragged up into piles of considerable height.



STEEL TRIPOD IN PLACE FOR PULLING A LARGE STUMP

Business Notes

The Hydraulic Specialties Company, of Albany, N. Y., has been incorporated for the purpose of conducting a contracting and engineering business with reference to water power, water supply and drainage systems.

The Public Contracting Company, of New Orleans, has been organized to do a general contracting business, specializing in concrete construction in the paving, sewer, waterworks and drainage fields. Howard Egleston is president and Henry J. Bonabel treasurer of the new company, whose temporary office is at 620 Maison Blanche.

The Terry Steam Turbine Company, of Hartford, Conn., has appointed Fidanque Brothers & Sons, of New York and Panama, with main offices at 15 Whitehall Street, New York, as representatives in the republic of Panama and the Canal Zone. Another change has been made in removing the Cleveland office of the Terry company to 503 Union Building.

The Ceresit Waterproofing Company, of Chicago, is erecting a small structure, "The Temple of Aquarius," in the Palace of Machinery for the Panama-Pacific International Exposition. The structure is composed entirely of concrete waterproofed with the Ceresit powder and is to be subjected to a constant drenching from a spraying fountain.

J. S. Mallory has been appointed manager of the sprinkler department of the Merchant & Evans Company, of Philadelphia. The firm deals in fire appliances, automatic and curtain sprinklers, hose and standpipe and fire hydrant systems. Mr. Mallory was formerly chief engineer of the International Sprinkler Company and later secretary of the Philadelphia Fire Prevention Commission. Recently he has been fire marshal for the city of Philadelphia.

Contracting News

Of Special Interest to Engineers, Contractors, Builders and Manufacturers of Engineering and Building Supplies

WATERWORKS.

Items Arranged Geographically

Adamsdale, Mass.—At a recent meeting of Adamsdale Improvement Society a committee consisting of A. A. Newell and Fred White, was appointed to investigate securing of a water supply.

★**Boston, Mass.**—Contract for laying 24-in. water pipes in Boston, Milton & Quincy, Contract 359, awarded to John J. Evans, Lawrence (bids opened July 27 by Metropolitan Water Board) as follows: 12,800 lin. ft. 24-in. c. i. pipe to lay, $1.05; 60 lin. ft. 6, 12 and 16-in. c. i. pipe for blow-offs and connections, to lay, 97 cts.; 150 cy. yd. rock excav. above grade, $4.90; 5 cu. yd. rock excav. below grade, $5.50; 50 cu. yd. earth excav. below grade, 75 cts.; 5 chambers, for 24-in. valves, $60; 10 chambers, for 6-in. and smaller valves, including blow-offs and air valves, $55; 10 cu. yd. concrete masonry, $6; total, $15,208. Next 3 lowest bids: Michael Russo & Son, Boston, $16,225; Andrew M. Cusack, Boston, $16,278; John E. Palmer, Boston, $16,584.

★Contract awarded July 31 to John E. Palmer, Old South Bldg., Boston, for constructing foundation for the proposed reservoir on Bellevue Hill, West Roxbury, at $5,874. He bid for 3500 cu. yds. earth excav 48 cts.; 10 cu. yds. rock excav., $4; and 620 cu. yds. concrete masonry, $6.70.

★Contract for laying 20-in. c. i. water pipe at Bellevue Hill, West Roxbury, awarded to Chas. R. Gow Co., 66 Devonshire St., Boston, at $5,007 (bids opened July 31 by Metropolitan Water & Sewerage Bd.).

Duxbury, Mass.—Bids were opened as follows July 23 by Bd. Water Comrs. of Duxbury Fire & Water Dist. for furnishing material and constructing water works from plans of Wm. S. Johnson, 101 Tremont St., Boston:

★Laying pipe contract awarded to Light, Heat & Power Corp., as follows: 8000 ft. 12-in. pipe, 29½ cts.; 8000 ft. 10-in., 28¾ cts.; 7000 ft. 8-in., 24¼ cts.; 52,000 ft. 6-in., 2½ cts.; total, $17,537. Next 3 lowest bids: Thos. Bruno, $18,460; Roach-Webber, $18,555; Susi & Williams, $18,970.

★Furnishing c. i. pipe contract awarded to Donaldson Iron Co., as follows: 694 tons, 12, 10 and 8-in. pipe, $21 per ton; 760 tons 6-in. pipe, $21.90 per ton; 30 tons special castings, $50; total, $32,718. Totals of other bids: Light, Heat & Power Co., $33,796; Standard C. I. Pipe & Foundry Co., $33,963; U. S. C. I. Pipe & Foundry Co., $34,676.

★Constructing concrete reservoir awarded to R. L. Whipple & Co., at $7,115.

★Constructing pumping station awarded to Arthur H. Bailey, $3,482.

★Furnishing hydrants, gates and gate boxes awarded to Chapman Valve Mfg. Co., $5,599.

Lowell, Mass.—City Council has voted to issue $225,000 bonds for construction of the proposed filtration plant.

Naples, N. Y.—Citizens reported to have voted $18,000 bonds to pipe water from springs to reservoir.

Riverhead, N. Y.—Bids desired until Aug. 25 by Bd. Water Comrs., for constructing a system of water works, advertised in Engineering Record. Walter E. Sexton, Engr., Mineola.

★**Ward's Island, N. Y.**—Contract awarded July 27 by State Hospital Comn., Albany, for repairs to 12-in. water main under river at Manhattan State Hospital Ward's Island to New York Submarine Contr. Co., Inc., New York, at $2,200. Lewis F. Pilcher, Archt., Capitol, Albany.

Trenton, N. J. — City Commission adopted resolution authorizing a bond issue of $80,000 to complete the filtration plant.

Blairsville, Pa.—Bids desired until Aug. 11 by Town Council, for pumping engine of duplex type or triple expansion or single stage centrifugal pump driven with steam turbine with exhaust steam; also vacuum pump and condenser of ample capacities. E. J. O'Brien, Engr., Latrobe.

★**Hauto, Pa.**—Contract reported awarded by Lehigh Coal & Navigation Co. to Williams & Richardson, Scranton, for constructing 7,000,000-gal reservoir; cost, $150,000.

Kittanning, Pa.— Borough Council passed ordinance calling for election to authorize issue of $112,000 bonds for construction of municipal water works.

Reading, Pa.—This city is considering the construction of 3500 ft. of 30-in. pipe line on 13th St. north to the city line. This is said to be the first step toward constructing the Hegel-Gehl reservoir, which will cost about $350,000.

Pollock, Md.—Citizens voted $45,000 bonds for a sewer system and water works.

Petersburg, W. Va.—Bids desired until Aug. 10 for steel standpipe, 20 ft. diam., 60 ft. high and 23 ft. diam., 50 ft. high. R. W. Baker, Mayor.

Winnsboro, S. C.—Citizens discussing advisability of bonding town to the amount of $100,000 for repair of electric light plant and water works.

Atlanta, Ga.—W. Z. Smith, Genl. Mgr. of City Waterworks, recommends that city expend $200,000 on additional filter beds.

Columbus, Ga.—This city reported to have completed plans for purchase of property of Columbus Water Supply Co. The city will improve same by installation of more hydrants, building of an improved reservoir system and pumping station, enlarge mains, etc.

★**Lagrange, Ga.**—Additional contracts for water works supplies reported awarded as follows: Triplex pumps and auxiliary pumps, to Buffalo Steam Pump Co., Charlotte, N. C., $7,000, and 2 raw water pumps, to Platt Iron Works, $1,616.

Royston, Ga.—House passed bill to authorize city to issue $100,000 bonds to build waterworks, sewers and crematory.

★**Daytona Beach, Fla.** — Contract awarded to Chattanooga Boiler & Tank Co., Chattanooga, Tenn., to erect a 50,000-gal. steel tank on a steel tower, 89 ft. to the balcony, at $2,411.

Bay Minette, Ala.—Citizens voted July 27 bonds for sewers, water works and electric light plant.

Breaux Bridge, La.—Bids desired until Aug. 20 for $12,000 electric light and water extension bonds. C. C. Rees, Mayor.

Cincinnati, O.—Bids desired until Aug. 12 by Director Public Service for furnishing and delivering sulphate of iron for filtration plant of Water Dept. for remainder of year 1914.

★**Fairport, P. O. Fairport Harbor, O.**—Contract awarded July 28 for 17,500 ft. 4, 6 and 8-in. c. i. water pipe to Chapman & Glover, Lorain, at $12,477. Next 3 lowest bids: Glover & Maybach, Cleveland, $14,362; Haley & Nelson, Columbus, $15,553; S. A. Haskell, Painesville, $15,761. J. C. Ward, Village Engr.

Maumee, O.—Bids desired by Thos. N. Dowling, Village Clk., until Sept. 1 for the purchase of $56,000 bonds, for constructing municipal water works. Engineer, Geo. Champ, Nasby Bldg., Toledo.

Steubenville, O.—The Water Works Comn. in its report asks City Council to enact legislation necessary to complete reservoirs, as required by State Bd. of Health, which amount would be $65,000; also recommends an additional 6,000,000-gal. pump be purchased to replace two 3,000,000-gal. pumps now at Alikanna pumping station.

Sycamore, O.—Bids reported desired until Aug. 14 by Clerk Bd. Trus. Public Affairs for municipal water and light plants improvements. Geo. Champe, Engr., Toledo.

Toledo, O.—Local press reports state bids desired by City Clerk until Aug. 10 for 6000 tons steel pipe for water main construction.

Youngstown, O.—Bids desired until 12 m., Aug. 10, by Director Pub. Service, to furnish and install 3 horizontal condensing steam turbines, with all appurtenances, in new pumping station, West Ave. and Baltimore & Ohio R. R. and Mahoning River.

Zanesville, O. — Chester & Fleming, Pittsburgh, Pa., reported engaged to prepare plans for filter; estimated cost, exclusive of power house, $125,000, and with power house cost about $200,000.

★**Goodland, Ind.**—Contract for constructing waterworks awarded to National Co., South Bend.

Huntington, Ind.—City Council has adopted ordinance ordering issue of $50,000 bonds for construction of a municipal lighting plant and repair of water works plant.

Bedford, Mich.—Citizens reported to have voted $18,000 bonds for water works.

Ashton, Ill.—Plans being prepared by Jas. H. Thompson, Chicago, for constructing water works. Election to be held in fall. Ralph J. Dean, Village Clk.

East St. Louis, Ill.—The East Side Water Co., East St. Louis, reported incorporated with a capital of $2,000. It is to furnish water in the counties of St. Clair and Madison and erect or purchase water works, etc., in cities, towns or villages in said county. Incorporators: John F. Boogher, Breckenridge Long and Fred. H. Semple.

Grays Lake, Ill.—Bids opened July 23 by Village Clk. for a 60,000-gal. steel tank and a 100-ft. steel tower: Chicago Bridge & Iron Co., Chicago, $4,150; Des Moines Bridge & Iron Co., Des Moines, Ia., $4,110; Rock Island Bridge & Iron Co., Rock Island, $3,975.

★Contract awarded July 23 for constructing system water supply pipes to C. P. Bartlett & Co., Evanston, at $11,990. Next 2 lowest bids: T. H. Ingelhart, Chicago, $12,211; P. W. Galloway, Racine, Wis., $12,669.

Little York, Ill.—Bids reported desired until Aug. 15 by Village Clerk, for drilling a well.

Morrison, Ill.—Bids desired until 2 p. m., Aug. 10, by Supt. Water Wks., for furnishing f.o.b. cars Morrison, 2504 lin. ft. 8 in., 260 lin. ft. 6 in., 3332 lin. ft. 4 in. c. i. pipe; 5508 lbs. pig lead, 179 lbs. hemp, 4689 lbs. special fittings, five 8 in., two 6 in., and 10 4 in. gates, 16 gate boxes.

Sullivan, Ill.—Citizens voted $35,000 bonds for extension of water mains and improvement of light plant.

Dubuque, Ia.—Bids reported opened July 29 by Bd. Water Wks. Trus. for constructing a 7,500,000-gal. reinforced concrete reservoir and appurtenances and a 24-in. c.-i. pipe line, about 2100 ft. long: (a) regular bid, (b) alternative: Bryne & Saul, Dubuque, (b) $86,000; John T. Blake, Madison, Wis., (a) $72,000; Anton Zwack, Dubuque, (a) $89,956, (b) $84,956; George W. Stiles, Chicago, (a) $86,538; Commercial Constr. Co., Kansas City, (b) $86,000; Jas. Stewart & Co., Chicago, (b) $106,790; Tibey Bros., Dubuque, (b) $87,000; Wodrich & Son, Dubuque, (a) $75,650; Mid-West Constr. Co., Kansas City, (a) $76,500, (b) $66,000; J. J. Jobsh, Peoria, Ill., (b) $62,000; J. W. Fureur Improv. Co., Des Moines, (b) $69,750; Nash-Dowdle Co., Chicago, (a) $90,217, (b) $75,217; M. Hayes & Sons, Janesville, Wis., (a) $68,000, (b) $64,000.

Humeston, Ia.—Bids desired by City Clerk until Aug. 11 for dam, pump house, 1900 ft. water main, pump and motor, 60,000 gal. elevator tank, hydrants, valves, etc. M. G. Hall, Engr., Centerville.

Knoxville, Ia.—Bids desired until Aug. 11 (extension of date from Aug. 5) by City Clerk for 34,520 ft. 4, 6 and 10-in. c. i. pipe and specials f.o.b. cars Knoxville; also for an extension to system, including 2 pumping stations, a 500,000-gal. reinforced concrete reservoir, 100,000-gal. steel water tower, a 10-in. pipe line about 6 miles long, and a 10-in. main about 1500 ft. long. David G. Fisher & Co., Public Utility Engrs., Davenport, Ia.; Dabney H. Maury, Consulting Engr., Chicago, Ill.

Ada, Minn.—Bids reported desired until Aug. 19 by City Clerk for drilling an 8 and 10-in. artesian well.

Buhl, Minn.—See "Power Plants."

New Ulm, Minn.—Bids desired until Aug. 13 by City Clerk for drilling a well approximately 360 ft. on the reservoir site near New Ulm.

St. Paul, Minn.—Official reports state bids desired until Aug. 10 by Purchasing Agent, Court House and City Hall, for furnishing 194,000 ft. c. i. pipe.

Lawrence, Kan.—An entire new water works being considered at a cost of $350,000.

Newton, Kan.—The Mayor writes that this city has under consideration a proposition for installation of electrical equipment at the waterworks plant and would like to get into communication with other waterworks plants thus equipped.

Harlowton, Mont.—Citizens voted July 27 to issue $15,000 bonds for water works improvements. Engineers, Gerharz-Jacqueth Eng. Co., Great Falls. S. K. Campbell, Town Clk.

Neosho, Mo.—Bids desired until Aug. 10 for the purchase of $60,000 bonds to extend water system to include 8 miles c. i. water pipe, a 500,000 gal. reinforced-concrete reservoir, a 50,000 gal. elevated tower and tank, and a 500-gal. a minute motor driven centrifugal pump. Albert C. Moore, Engr., Bartlett Bldg., Joplin.

Ashdown, Ark.—Bids for water works and sewer system will probably be received within the next 60 days.

Glenwood, Ark.—The question of issuing $50,000 bonds for water works and a sewer system reported under consideration.

Brenham, Tex.—Citizens voted $30,000 bonds for improvement of water works and sewer system.

Dallas, Tex.—J. M. Bassett, Ch. Engr., Water Dept., will be asked to furnish estimates and data for water works improvements including installation of new high pressure pump at Turtle Creek station; a force main from that place into city; and the installation at Bachman's reservoir of a low pressure pump of between 30,000,000 and 50,000,000 gals. daily capacity.

Denison, Tex.—Bids desired by Mayor and Bd. of Comrs. until Sept. 5 for furnishing and installing equipment for a 2,000,000-gal daily capacity mechanical filter plant. A. B. Clenny, City Engr.

★**El Paso, Tex.**—Contract reported awarded by Quartermaster General U. S. A. to Mayfield & Shaw for constructing water works and sewer system at post here at $15,160.

La Porte, Tex.—See "Power Plants."

Longview, Tex.—See "Power Plants."

Canon City, Colo.—City Council has voted to complete overhauling of city's filtration plant as soon as necessary contracts can be let.

PeEll, Wash.—Messrs. Bobo and Shepherd, business men of this city, have presented a franchise ordinance to City Council for building a new water system.

Puyallup, Wash.—City Council desires bids for 5000 ft. of 4 in. iron water mains.

Seattle, Wash.—Council authorized laying of water mains on 38th Ave. S. and other streets; cost $18,748.

Snohomish, Wash.—All bids for constructing water system reported rejected, and city will do work by day labor.

Bandon, Ore.—It is reported that bonds in the sum of $48,500 are about to be sold for construction of water works.

Warrenton, Ore.—Citizens voted July 27 to authorize Water Comn. to issue $150,000 bonds to construct a gravity water system from Lewis and Clark River, by way of Ft. Stevens and New Astoria (Hammond), to the city.

★**Bingham Canyon, Utah**—Contract awarded July 22 for 220 tons c. i. water pipe to D. C. Dunbar, Salt Lake City, at $7,786, f. o. b. Bingham. Francis W. Quinn, Town Clk.

Payette, Idaho—Council reported to have decided to issue $12,000 bonds for constructing reservoir and pipe line.

★**Hull, Que.**—Contract reported awarded by City Council to Gendron & Wilson for waterworks extensions, at $19,350.

Montreal, Que.—Bids desired until Aug. 11 by Secretary City Comrs. for furnishing and installing at low level pumping station, Montreal, a 24,000,000 imperial gallon steam turbine driven high lift centrifugal pumping engine.

Port Moody, B. C.—City considering issue of $88,000 bonds for water works extensions.

Panama.—Bids desired until Aug. 17 by General Purchasing Officer, Panama Canal, Washington, D. C., for Cir. 863—motor-driven pumps, shell hoists, shell tables, powder hoists and float switches for fortifications.

North Adams, Mass.—Bids opened July 27 by Comr. Pub. Wks. for constructing earth dam, reservoir and concrete conduit with appurtenances from plans of Wm. S. Johnson, Consulting Engr., 101 Tremont St., Boston; (a) Middlesex Contr. Co., Putnam, Conn., $87,750; (b) Framingham Contr. Co., South Framingham, $88,406; (c) Hanscom Constr. Co., Boston, $103,717; (d) W. T. Ryan Contr. Co., Hartford, Conn., $123,600; T. Stuart & Sons Co., Newton, $125,637; Davis & Brock, Brookline, $129,187; Mason, Hilton & Co., New York, $129,375; D. O'Connell Sons, Holyoke, $131,525; H. P. Converse & Co., Boston, $132,436; Light, Heat & Power Corp., Boston, $149,207; P. J. Kennedy & Co., Holyoke, $159,675.

Unit prices of 4 lowest bidders, a, b, c, d:

	a	b	c	d
5,000 cu. yds. earth excav.	$0.80	$1.08	$0.65	$1.10
70,000 cu. yds. earth fill	.35	.30	.43	.59
2,900 cu. yds. concrete masonry (in dam)	4.75	6.00	6.25	6.00
900 cu. yds. concrete masonry (in conduit)	11.00	8.00	8.75	10.00
4,000 sq. yds. slope paving	1.00	1.15	1.42	1.50
1,000 cu. yds. paving spillway	2.05	6.00	4.00	4.00
2,500 cu. yds. rip rap	1.50	1.75	3.00	1.75
65,000 cu. yds. stripping	.33	.28	.35	.48
Lay 24-in. cast-iron pipe, 250 ft.	2.50	1.75	1.00	2.50
47,500 lb. steel reinforcing	.06	.03¼	.02½	.04
Gate house (lump sum)	600.00	1,500.00	2,500.00	2,000.00
Appurtenances (lump sum)	250.00	750.00	500.00	300.00

★*Items marked thus give the names of parties awarded contracts.*

SEWERAGE AND SEWAGE DISPOSAL.

Items Arranged Geographically

★**Milford, Me.**—Contract awarded July 15 for constructing 6935 ft. sewers to Hobart & Richardson, Old Town, Me.

Boston, Mass.—Bids desired until Aug. 12 by Comr. Pub. Wks. for sewerage work in Vose, Metropolitan, Milton Aves., Washington Pl. and Glenwood Pl., Hyde Park.

★**Providence, R. I.**—Contract for construction of sewers through streets on the Hope St. Highland plat, 1 mile in length, awarded by Bd. of Contract and Supply, to Chas. Crankshaw.

Gloversville, N. Y.—Bids desired by City Clerk until Aug. 18 for furnishing and laying 420 ft. of 12-in. vitr. sewer pipe; 820 ft. 8 in.; 1000 ft. 4-in. and 8 manholes. Harry J. Hanmer, City Engr.

New York, N. Y.—Bids desired until Aug. 10 by President Boro. Manhattan for reconstructing sewer in South St. Security, $3,000.

Bids desired until Aug. 18 by Douglas Mathewson, Pres. Boro. Bronx, for sewers in portions of Albany Crescent, Glover St., Westchester and Plimpton Aves.; also for 232 lin. ft. 38 ft. x 50 ft., 250 lin. ft. 29 ft. x 40 ft. concrete sewer and 1408

Rochester, N. Y.—Ordinances adopted by City Council as follows: Driving Park Ave. crosslot sewer, $4,000; Penhurst St., grading, walks and sewer, $7,000; Elba St., walks, sewer and grading, $6,000; Hilendale St., walks, grading and sewer, $7,000; Norton St., sewer, $2,000; Main St. East, walks, $9,000; Monroe Ave., walks, $2,000.

★Following are 4 lowest bids on sanitary and storm sewers on Winton Road, Merchants Road, Atlantic Ave. and other streets: Lewis H. Brotsch, Rochester, $65,201 (awarded contract); John Petrossi Co., $69,361; Schroeder Hicks Contr. Co., $70,878; Thos. Holahan, $72,595. Contractors all of Rochester. Fredk. T. Elwood, Deputy City Engr.

Suffern, N. Y.—Plans being prepared for a sewage disposal plant and sewer system by Clyde Potts, 30 Church St., New York.

Syracuse, N. Y.—Plans reported completed for construction of storm water sewer system in First and Second Wards by the Intercepting Sewer Comn. (Glenn D. Holmes, Ch. Engr.)

Watertown, N. Y.—Lowest bids opened July 24 by Bd. Pub. Wks. for construction of Hamilton St. sewer for the relief of Arlington St. sewer submitted by Burns Bros. & Haley, Watertown, at $6,449.

★**Rouseville, Pa.**—Contract awarded by Borough Council for construction of sewer system to Mr. Hamilton, of Oakmont, to include 17,800 lin. ft. 6 and 12-in. vitr. sewer pipe; 160 ft. c. i. pipe and 1200 ft. of storm basins and manholes.

★**Baltimore, Md.**—Contract reported awarded July 29 by the Bd. of Awards to Carrozza Bros. & Co. for sanitary sewers at $174,406.

Pollack, Md.—See "Water Works."

Williamson, W. Va.—See "Paving and Roads."

Durham, N. C.—Bids desired until 4 p. m. Aug. 10 by Mayor and Bd. Alderman, for constructing sewage disposal plant, to consist of Imhoff tank, about 2 acres of sand filters and about 1 mile of 24-in. terra cotta pipe line.

Brunswick, Ga.—Citizens voted July 22 to issue $30,000 bonds to be used for extending sewerage in New Town.

College Park, Ga.—House passed bill to amend charter of city so as to provide for a bond issue of $15,000 for sewers.

Royston, Ga.—See "Water Works."

★**Daytona, Fla.**—Contracts awarded by City Council July 25 as follows: To Bibb Sewer Pipe Co., Macon, for furnishing vitr. pipe; to U. S. Cast Iron Pipe & Foundry Co., Chattanooga, Tenn., c. i. pipe; to J. G. Christopher Co., Jacksonville, galvanized steel pipe; to Gibbs Gas Engine Co., Jacksonville, furnishing oil engines and appurtenances; to N. C. Walpole, New York, furnishing air compressors and appurtenances; to Sanitation Cor., New York, furnish Riensch sewerage screen; to Gibbs Gas Engine Co., Jacksonville, installing machinery in sewage pumping station; to Guild & Co., Chattanooga, Tenn., excav. and refill, concrete, steel reinforcement, rock excav. and pumping station superstructure; to Shone & Co., Chattanooga, Tenn., construction work, including all necessary material for the work.

Bay Minette, Ala.—See "Water Works."

★**Birmingham, Ala.**—Contract awarded by Bd. of Comrs. July 25 to H. N. Bowdry to construct sanitary sewers in East Birmingham, at $15,546; work includes 1250 lin. ft. 15-in. pipe; 660 lin. ft. 12-in.; 2400 lin. ft. 10-in.; 24,000 lin. ft. 8-in.; 1280 lin. ft. 4-in. risers; 438 1/8th bends; 125 manholes and 1050 wyes. Julian Kendrick, City Engr.

Meridian, Miss.—The Tuberculosis Hospital Assoc. (O. C. Morgan, Secy.-Treas.) reported to have authorized Burt Stuart, Archt., to prepare plans for sewer system and power plant.

Paducah, Ky.—Aetna Eng. Bureau, Chicago, Ill., preparing plans for No. 3 Sewer Dist. Work will be started on new sewer dist. about Aug. 18; the city will spend about $57,000 in construction of new sewers.

Centerburg, O.—Bids desired until Aug. 14 by Village Clerk for constructing sewer in portion of Main St.

Dayton, O.—Plans have been completed for part Sewer Dist. No. 6 south of 3d St. and west of Champa, Whitmore, Randolph and Manning Sts. Legislation will start at once and construction early next spring; estimated cost, $45,000. G. C. Cummin, City Engr.

Lowest bids opened by Director of Service for installing storm sewer on E. First St. from Webb to Findlay Sts., submitted by Boyd & Cook, at $5,224.

East Youngstown, O. — Establishment of a sewage disposal plant is being considered by Health Board.

★**Fairport, P. O. Fairport Harbor, O.**—Contract awarded July 28 for 7500 ft. 8 and 10-in. sewer to Chapman & Glover, Lorain, at $5,401.

★**Kenmore, O.**—Contract for constructing sewage disposal plant awarded to F. G. Diefendorf, Erie, Pa., at $54,805. Other bids opened July 11 E. McShaffrey & Son, Akron, $60,581; E. J. Landor, Canton,

Sandusky, O.—Bids reported desired until Aug. 14 by County Surveyor for about 4000 ft. 8, 10, 12, 15 and 18-in. vitr. pipe sewer; cost about $3,500.
$55,984. E. J. Shook, City Clk.

Woodfield, O.—Bids reported desired until Aug. 15 by Mayor for 3000 ft. 18-in. tile sewer.

Greencastle, Ind.—Bids desired until Aug. 26 by City Clerk for constructing a sewer system in Sewer Dist. No. 1, advertised in Engineering Record. A. A. Lane, City Engr.

Crystal Falls, Mich.—Bids desired until 8 p. m., Aug. 10, by City Clerk, for constructing a portion of Dist. No. 1 of sewer system.

★**Zeeland, Mich.**—Contract reported awarded to Andrew Geeck, Owosso, Mich., at $16,500 for construction of sewer system and sewage disposal plant. Engineers, Rumsey & Works, Grand Rapids.

Racine, Wis.—Bids desired until Aug. 15 by City Clerk, for constructing public sewer in 21st St., 3522 ft. 66 in., 1778 ft. 60 in., 578 ft. 54 in., 1353 ft. 36 in., 624 ft. 30 in., 327 ft. 27 in. brick sewer and 323 ft. 18 in. pipe sewer, 26 manholes, 33 catch basins, 155 lin. ft. concrete outfall in 12th St., and Washington Ave., 617 lin. ft. 78 in. and 3920 lin. ft. 75 in. brick sewer, 11 manholes, 14 catch basins, and 1 concrete outfall; in Augusta, Geneva, Wolff, Layard and Douglas Aves., 1320 lin. ft. 66 in., 2270 lin. ft. 60 in., 300 lin. ft. 48 in., 1315 lin. ft. 42 in., 2559 lin. ft. 39 in., 1301 lin ft. 36 in., 908 lin. ft. 30 in., 600 lin. ft. 27 in., 330 lin. ft. 24 in. brick sewer, 4458 lin. ft. 8 to 21 in. pipe sewer, 44 manholes, 2 lampholes, 87 catch basins, 150 lin. ft. concrete outfall.

Cedar Rapids, Ia.—Bids desired until Aug. 10 by City Clk. for constructing sewers in portions of several streets, including 14th and H Aves.

St. Paul, Minn.—Bids desired until Aug. 11 by Purchasing Agent, Court House and City Hall, for constructing a sewer in Jessamine St.

★**Omaha, Neb.**—Contract awarded July 29 for constructing sewers within Sewer Dist No. 503 to E. P. Donahue Co. at $5,937. Watson Townsend, City Engr.

Casselton, N. D.—City Auditor writes it is proposed to construct sewer system, but nothing definite yet done.

Lidgerwood, N. D.—F. W. Mashek, City Aud., writes bids desired until Aug. 17 for construction of sewer system, with septic tank; cost, $24,000. Engineer, H. G. Lykken, Grand Forks.

Billings, Mont.—Bids reported desired until Aug. 18 by City Clerk for constructing sewers in district bounded by N. 32d St., Grand Ave., Ave. H and city limits; cost $18,000.

★**Choteau, Mont.**—Contract reported awarded to F. E. Evans & Co., Great Falls, for constructing 3.2 miles of sewer.

Sheridan, Wyo.—Bids desired until Aug. 18 by City Clerk for furnishing material and constructing 8 miles of 8 and 10-in. sanitary sewer, advertised in Engineering Record.

Argenta, Ark.—Bids desired until Aug. 25 by Sewer Dist. No. 1, City Hall, Argenta, for 17 miles of tile sewers and 3 miles of reinforced-concrete sewers; estimated cost $300,000. Lund & Hill, Engrs., Little Rock.

Ashdown, Ark.—See "Water Works."

Glenwood, Ark.—See "Water Works."

Brenham, Tex.—See "Water Works."

★**Dallas, Tex.**—Contract for construction of storm sewer on Grigsby St. awarded to Dallas Lime & Gravel Co., Dallas, at $12,186.

El Paso, Tex.—See "Water Works."

Houston, Tex.—Citizens of Harris County will soon be asked to vote on issue of $3,000,000 bonds, to be spent in constructing wharves, docks and water terminals on ship channel and $2,000,000 for drainage and sanitary sewers.

★**Bellingham, Wash.**—Contract reported awarded to J. Ager at $8,361 for constructing a 6 to 12-in. sewer in Eldridge and Bartell Addition.

Seattle, Wash.—Plans reported completed by City Engineer for constructing sewers in Eli Ave.; cost $20,000.

★Contract awarded to L. R. Ellis, Central Bldg., for sewers in 3d Ave. W., syphon tunnel, under Lake Washington Canal, at $13,362.

Lowest bid opened July 24 by Bd. of Works for constructing sewers in 42d Ave. S. W. reported submitted by Dahlstrom & Rodahl, 2437 W. 56th St., at $19,143.

Council July 27 authorized construction of sewers on Lakeside Ave. and other streets, to cost $30,197.

Astoria, Ore.—L. C. Rogers, City Engr., writes bids desired until Aug. 15 for constructing 24,000 ft. 30 to 8-in. pipe sewer, average cut 4 ft.; cost $50,000.

Dallas, Ore.—Bids desired by City Clerk until Aug. 17 for construction of a sewage treating plant and intercepting sewers; total estimated cost, $10,000. S. B. Taylor, City Engr.

Enterprise, Ore.—Bids desired until Aug. 25 by City Clerk for constructing a sewer system. C. H. Green, Paulsen Bldg., Spokane, Wash., Consulting Engr.

Chino, Cal.—Question of constructing sewer system reported under consideration.

Etna, Cal.—Citizens voted July 27 to issue $21,000 bonds for a sewer system and disposal works. E. W. Bathurst, Pres. Town Bd. D. Baker, Engr., 310 Sansome St., San Francisco.

★**San Francisco, Cal.**—Contract awarded to R. C. Storie for constructing Baker's Beach outlet sewer at $23,000.

★**Regina, Sask.**—Contracts for construction of storm and domestic sewers awarded to E. G. McVean, at $26,356, and to the R. J. Lecky Co., at $50,068.

Vancouver, B. C.—Bids reported opened July 16 by Joint Sewerage Board of Vancouver, Point Grey and North Vancouver, Birks Bldg., for constructing China Creek section of joint sewer: John Galt Cont. Co., $396,396; Ledingham & Cooper, $376,769; Hodgson, King & MacPhalen Bros., 319 Pender St. West, $309,052; H. P. Peterson, $332,646; Moore & Pethick, $340,100; Union Contracting Co., $348,564. The work includes 2600 ft. 6-ft. sewer tunnel, 21,000 ft. of concrete sewers and 1500 ft. of vitr. pipe sewer.

Vernon, B. C.—City Council reported to have decided to proceed at once with improvement to local sewer system to cost between $90,000 and $100,000. A new disposal plant will be constructed on Kalamalka Creek.

BRIDGES.

Items Arranged Geographically

Ft. Kent, Me.—U. S. Senate and House passed bill providing or constructing bridge over St. John's River at Ft. Kent.

Lawrence, Mass.—U. S. Senate passed bill authorizing city of Lawrence to construct bridge over Merrimac River. Contract for this bridge was let May 20 to Ryan & Keon, Boston.

Medfield, Mass.—Lowest bid opened by County Comrs. for constructing concrete bridge between Medfield and Sherborn submitted by Chas. J. Jacobs Co., 107 Terrace St., Roxbury, (2 bids), $10,238 and $12,278.

★**Albany, N. Y.**—Contract awarded by State Supt. Pub. Wks. for Contract No. 118, Erie Canal, Sect. 3, a city highway bridge over Mohawk River at Amsterdam to Lathrop, Shea & Henwood Co., Buffalo, $147,408 (bids opened July 21). For unit prices see Engineering Record July 25.

Albany, N. Y.—See "Hydraulic Construction and River Improvements."

Long Island City, L. I., N. Y.—Bids desired until Aug. 10 by Boro. President for regulating, grading, curbing, flagging and paving with granite blocks Thomson Ave., 9700 sq. yd. pavt., 10,300 sq. yd. new flagstone sidewalk, etc.; also regulating, grading and curbing Liberty Ave., 4500 lin. ft. bluestone curb, 5600 lin. ft. cement curb with steel nosing, etc. Security $18,000 and $10,000, respectively.

New York, N. Y.—Public Service Comn. has notified Bd. Estimate that it concurred in recommendation for reconstruction of Queensboro Bridge so that this structure may be used for operation of subway trains in accordance with plan recently submitted by Bridge Comr. Kracke, who estimates cost reconstruction work at $2,116,000.

Oswego, N. Y.—Town and County voted to engage Howard Mallory, Syracuse, to prepare plans for iron bridge, and Concrete Steel Engineering Co., Park Row Bldg., New York, to prepare plans for concrete bridge for Minetto Bridge.

Elizabeth, N. J.—Engineers Union and Hudson Freeholders Bds. preparing plans and estimates of cost on constructing bridge over Newark Bay between Elizabethport and Bayonne.

Newark, N. J.—Plans and specifications being prepared by County Engineer for constructing bridge from Elwood and Washington Aves., Newark, to Belgrove Drive, Kearney; cost, $900,000.

★**New Gretna, N. J.**—Contract awarded July 31 for constructing concrete bridge over Bass River to Rennell Constr. Co., New York, N. Y., at $16,350. Other bids: Kelly-McFeeley Co., Camden, $19,370; Bridgeton Constr. Co., Bridgeton, $19,000; Penn Bridge Co., Beaver Falls, Pa., $18,-800; Medford Concrete Co., Medford, $17,-200; H. & A. M. Mathis, New Gretna, $17,-480. Jas. Logan Co., Engr., Mt. Holly.

Bedford, Pa.—Bids desired until Aug. 10 by Co. Comrs. Bedford, for constructing steel bridge over Crooked Run, Mann Township; also steel or concrete bridge over Beaver Dam Creek, Kimmel Township, near Queen; and repairs to bridge over Raystown Branch of Juanita River, Liberty Township.

Bloomsburg, Pa.—Bids desired until Aug. 15 by Co. Comrs. for constructing a double span plate girder bridge with concrete floor and back walls, on present abutments over Fishingcreek, Orange Township. G. A. Flink, Consulting Eng., Harrisburg.

Butler, Pa.—Bids desired until Aug. 25 by City Engr. for rebuilding the Wayne St. viaduct over tracks of B. & O. and B. & E. Railroads, advertised in Engineering Record.

Chester, Pa.—See "Paving and Roadmaking."

Greenville, Pa.—Bids desired until Aug. 17 by County Comrs. at Mercer for furnishing material and constructing the superstructure of bridge over Shenango River at College Ave., Greenville.

North Braddock, Pa.—Bids desired until Aug. 11 for constructing steel and concrete approach to Frazier St. foot bridge, 90 ft. long, 8 ft. wide. Geo. F. Seifers, Boro. Engr., Spring and Jones Aves.

Philadelphia, Pa.—Bids desired until Aug. 14 by Director Pub. Wks., for constructing bridge on 71st St., Reed St. and Warrington Ave.

Pottsville, Pa.—Bids desired until Aug. 11 by Co. Comrs. Pottsville, for repairing Bridge No. 4, 119 and 120, and erection of new bridges No. 109 and 121.

Reading, Pa.—Plans and specifications prepared by Reading, Birdsboro and Pottstown Traction Co. (Wm. A. Witman, Gen. Mgr.) for constructing bridge over Schuylkill River, at 6th St.; cost about $175,000.

Sunbury, Pa.—Bids desired until Aug. 21 by Co. Comrs. for paving with fire clay bridge on island between channel spans of Milton Inter-County Bridge, three lines of iron 2-in. pipes on brackets painted with 2 coats of paint on channel spans, reflooring with 3-in. oak plank east channel span, and repairing west channel span and placing of new railing strips on all channel spans of said bridge. Aaron Baker, Co. Compt.

Easton, Md.—Bids opened July 28 by County Comrs. for 366 lin. ft. concrete retaining wall at Easton approach to Miles River Bridge: E. Ney Dodson, St. Michaels, Md., $4,225, and Luten Bridge Co., York, Pa., $5,913.

Norfolk, Va.—Franchise granted July 18 to the Norfolk & Berkley Bridge Co. (Geo. Dodge, Eng., Room 321, Bank of Commerce Bldg.), to construct bridges between Berkley Ward and Norfolk; cost, $350,000. J. O. Wiggs, Chmn. Bridge Com. City Council.

Asheville, N. C.—Bd. County Comrs. voted to construct concrete bridge over French Broad River; cost, $12,000.

John's Island, S. C.—General Assembly of South Carolina authorized County Comrs. Charleston County to construct bridge over Stone River.

Cincinnati, O.—Bids desired by Co. Comrs. Cincinnati, until Aug. 28 for constructing concrete bridge, on Baughman Rd., over Lee Creek, Harrison Township, Specification 330.

Bids reported desired until Aug. 21 by Co. Comrs. for repairing bridge over Sagamore Creek.

★**Cleveland, O.**—W. A. Stinchcomb, County Engr., writes under date of July 31, that contract for constructing Brooklyn-Brighton Bridge, has been awarded to P. J. McComb, Akron, O., at $438,811.

Delaware, O.—Bids reported desired until Aug. 15 by County Comrs. for constructing a bridge over Olentangy River, having four 40-ft. steel spans 20 ft. wide, creodone block floor, 1 new pier and abutments, sandstone pier and abutment. F. O. Highley, Co. Engr.

Fremont, O.—Plans being prepared by Wm. F. Schepflin, County Engineer, for steel and concrete bridge to replace Tindall Bridge.

Ironton, O.—Bids desired until Aug. 10 by Director Pub. Service for improving portions of 5th, 7th, Center and Lorain Sts. by paving with brick.

London, O.—Bids desired until Aug. 12 by County Comrs. for grading, graveling and constructing culverts on Becker Rd., Monroe and Somerford townships, a distance of 9037 ft.

★*Items marked thus give the names of parties awarded contracts.*

Sciotoville, O.—War Dept. is considering application of Chesapeake & Ohio Northern R. R. for permission to construct bridge over Little Scioto River at Sciotoville.

Wapakoneta, O.—Bids desired until Aug. 22 by Co. Comrs., Wapakoneta, for creosoted block and plank floor for Blackhoof St. Bridge, over Auglaize River, Wapakoneta; Englehaupt wall in Pusheta Township, Copeland wall in Union Township, Ruck Bridge in Pusheta Township, Veit Bridge abutment repair in Pusheta Township, Kirwan Bridge, Goshen Township; abutment repair in Sect. 22, Wellman Bridge, and abutment of Moulton Bridge, Washington Township; S. Graessle wall, Wm. Hesse Bridge, Sect. 31, and Harrien Miller Bridge, all in Salem Township. J. H. Meyer, Co. Surv.

Youngstown, O.—Bids desired until Aug. 12 by Co. Comrs., Youngstown, for constructing 2 abutments at bridge over Mill Creek, Boardman Center, East and West Road.

Indianapolis, Ind.—Bids reported desired until Aug. 25 by Co. Comrs., Indianapolis, for steel bridge at West New York St., over White River; appropriation $150,000.

Pentwater, Mich.—Bids desired until Aug. 12 at office of Frank R. Rogers, State Highway Comr., Lansing, for constructing 70-ft. through girder with 18-ft. roadway crossing north branch Pentwater River, Weare Township, Oceana Co. Henry Mathews, Township Highway Comr., Pentwater.

Cairo, Ill.—B. A. Wood, of Mobile, Ala., Ch. Engr. M. of W. and S. of Mobile & Ohio. R. R. Co. writes with regard to proposed bridge to be built by this company over Ohio River at Cairo, that this report is a little premature, as definite plans have not as yet been prepared.

Freeport, Ill.—Bids desired until 2 p. m., Aug. 10, by Mayor Chas. F. Franz, for rebuilding and repairing Stephenson St. Bridge; cost, $7,000. Chas. S. Hepner, City Engr.

★**Milwaukee, Wis.**—Contract for constructing bridge for Chicago & Northwestern R.R. here awarded to Pellett & McMullen, Manitowoc, at about $180,000.

New London, Wis.—Bids reported desired until Aug. 16 by City Clerk for constructing concrete bridge across Embarrass River.

Des Moines, Ia.—Des Moines Terminal, Great Western Ry. Co. and Interurban Co. considering paying $8,333 each toward constructing 7th St. Viaduct for city; estimated cost, $100,000.

Iowa City, Ia.—Bids desired until Aug. 21 by Bd. Superv. for removal of old steel bridge over Iowa River at Burlington St., and construction complete of 3 span reinforced concrete arch bridge. B. J. Lambert, Consulting Engr., Iowa City.

Keokuk, Ia.—Hamilton Bridge Co. contemplates constructing viaduct at Water St.; cost, about $400,000.

Mankato, Minn.—Bids reported desired until Aug. 17 by County Auditor, for constructing 4 reinforced concrete bridges, ranging from 50 to 70 ft. long.

Minneapolis, Minn.—Bids desired until Aug. 17 by Co. Comrs. for repairs to county bridge No. 21, Contract 35. A. P. Erickson, Co. Aud.

Shakopee, Minn.—Bids desired until Aug. 11 by Common Council for cleaning and painting Minnesota River Bridge.

Erie, Kan.—Bids reported desired until Aug. 24 by County Comrs. for construction 4 bridges, two 20, one 60 and one 75-ft. span.

Mound City, Kan.—Bids reported desired until Aug. 17 by County Comrs. for constructing reinforced concrete bridges.

Neodesha, Kan.—Plans being prepared for constructing 2 bridges for Neodesha Township; cost about $13,000.

Medora, N. D.—Bids reported desired until Sept. 7 by Co. Comr. for constructing a bridge over Little Missouri River, near here.

★**Shelby, Mont.**—Contract for constructing steel bridge here awarded to U. S. Bridge Co., Great Falls, at $9,199.

Jackson, Wyo.—Bids were opened July 22 at office of U. S. Reclamation Service, Boise, Idaho, to furnish material and construct highway bridge, and the lowest bid was submitted by the Omaha Structural Steel Works, Omaha; this company bid $35,777 for bridge on Jackson site for regular schedules, or $26,997 for alternates, and $26,765 for Gros Ventre site.

★**Kansas City, Mo.**—Contract for constructing high line bridge over Kaw River at E. Kansas Ave. awarded by Wyandotte County Comrs. to Kansas City Structural Steel Co., Kansas City, at $479,700.

Bids desired until Aug. 24 by County Surveyor Kansas City, for constructing a 26 ft. concrete girder in Sect. 28 Township 47, Range 29, and a 25 ft. concrete girder over Mullin Creek, Sect. 28, Township 47, Range 29.

★**Dalton, Ark.**—Contract for constructing stel bridge, 330 ft., over Eleven Point River awarded to Vincennes Bridge Co., Vincennes, Ind., at $6,390.

Houston, Tex.—Bids desired until Aug. 10 by County Auditor for constructing 4 concrete bridges for Hardy St. Road and for constructing 2 concrete bridges on Westheimer Alief Road; and for 2 concrete culverts at Mile Posts 39 and 40, Washington County Road.

Lampasas, Tex.—J. E. Morgan, Co. Clk., writes $14,000 recently voted, will be used for building 4 small bridges, 2 across Sim's Creek, one across Lucy's Creek and one across Lampasas River.

★**San Antonio, Tex.**—Contract for constructing Applewhite, Blue Wing and Borregas Crossing Bridges awarded by County Comrs. to Alamo Constr. Co., at $16,581.

Mora, N. M.—Bids desired until Aug. 12 (extension of date from Aug. 3) by County Clerk, for constructing bridge over Sapello River, at Watrous, either a 4 span steel bridge, 50 ft. spans, 16 ft. roadway, and concrete piers and abutments or a reinforced concrete girder bridge of four 51 ft. spans; bridge over Mora River, at Weber crossing either a combination 42 ft. span stone abutments and 16 ft. roadway or a steel span of the same length; bridge over Poate Creek, near Colmor, 42 ft. span, 16 ft. roadway combination or steel spans; bridge over Coyote Creek, at Lucero similar to Weber crossing bridge.

Santa Fé, N. M.—Bids reported desired until Aug. 29 by State Engineer, Santa Fé, for constructing bridge over Rio Grande at Arrey, to be 465 ft. Pony truss pile foundation bridge.

★**Malott, Wash.**—Contract for constructing 167-ft. steel span highway bridge over Okanogan River awarded to D. S. Gamble, Brewster, at about $15,000.

Seattle, Wash.—Plans forwarded by A. H. Dimock, City Engineer to War Dept. at Washington, D. C., asking permission to construct bascule bridges: One over Lake Washington Canal at 15th Ave., N. W., and one at Fremont, to be 60 ft. wide and have 150 ft. span; cost about $900,000.

A resolution adopted by Council authorizing Kings County Comrs. to proceed with constructing concrete piers for a bridge at Montlake Ave., using the $30,000 donation for a bridge at that point, provided in $3,000,000 road and bridge bond issue. The work is to be carried on by the canal contractors at that point, under direction of the Government Engineers, and will be inspected by City Engineering Dept.

City Council authorized sale of $829,500 bonds for constructing bridges at Fremont Ave. and 15th Ave. N. W.

McMinnville, Ore.—Lowest bid opened by Bd. County Comrs. July 24 for constructing Dayton Bridge and McMinnville Bridge of steel submitted by Coast Bridge Co. at $13,707 and $12,524 respectively.

Portland, Ore.—Bids desired until Aug. 25 by County Clerk for $625,000 Multnomah County, Ore., Interstate Bridge bonds.

★Contract for constructing bridge over Big Sandy River awarded by County Comrs. as follows: Foundation work and erecting superstructure, to G. W. Griffin, 1001 Alaska Bldg., Seattle, Wash., at $10,699, and for furnishing steel, to Portland Bridge Co., Portland, at $10,150.

St. Helen, Ore.—Bids desired until Aug. 15 by County Comrs. for constructing 4 bridges on Nehalem Highway, Columbia County, advertised in Engineering Record. H. L. Bowly, State Highway Engr., Portland.

Napa, Cal.—About $25,000 bonds have been sold for constructing 1st St. Bridge.

★**Sacramento, Cal.**—Contract for constructing concrete viaduct over Yolo Basin between Sacramento and Davis awarded by State Highway Dept. to Graff Constr. Co., Crary Bldg., Seattle, Wash., at $239,703.

San José, Cal.—Bids desired until Aug. 17 by Bd. Superv., San José, for constructing a steel highway bridge over Pajaro River, between the counties of San Benito and Santa Clara at the proposed crossing of the State Highway near the line of present Monterey Road.

Dewey, Utah.—Bids desired until Aug. 15 by Co. Comrs. at Moab for constructing a light stiffened suspension bridge, 650 ft. long, over Grand River near Dewey, advertised in Engineering Record. Other information with regard to bridge is on file in office of Engineering Record, 239 W. 39th St., New York.

Challis, Idaho.—All bids opened July 11 by Co. Comrs. for constructing 3 steel bridges over Salmon River rejected. No date yet set for receiving new bids. Two lowest bids received: J. H. Forbes & Co., Caldwell, Idaho, $17,114; Missouri Valley Bridge & Iron Co., $19,800. E. J. Michael, Co. Clk.

Idaho Falls, Idaho.—Bids desired until Aug. 21 by City Clerk for constructing bridge on Maple St., between Placer and Corner Ave., reinforced concrete construction.

Calgary, Alta.—Bids desired until Aug. 26 by City Engineer for constructing a reinforced-concrete arch bridge over Elbow Lake, consisting of 4 arch spans with abutments, piers and approaches, advertised in Engineering Record.

★**Vancouver, B. C.**—Contract for constructing Capilano Bridge awarded to Naylor Bros., Bank of Hamilton Bldg., Vancouver.

PAVING AND ROADS.

Items Arranged Geographically

Augusta, Me.—Following 3 lowest bids opened by State Highway Comn. on roads as follows:

Warren, Sect. No. 1, 3.07 miles, F. H. Marshall, South Portland, $15,725; Amos D. Bridges Sons, Hazardville, Conn., $18,906, and R. G. Miller Contr. Co., Hartford, Conn., $17,762.

Warren, Sect. No. 2, 2.77 miles, A. D. Bridges Sons (2 bids), $17,439 and $16,759; Middlesex Contr. Co., Putnam, Conn., $16,533.

St. George, 4.98 miles, International Constr. Co., Boston, Mass., $26,856; Middlesex Contr. Co., $26,290; R. G. Miller Contr. Co., $22,575.

Dover, 6.72 miles, Giovannini & Caputo, Boston, Mass., $40,982; R. G. Miller Contr. Co., $41,530; J. & J. T. Mullen, Bangor, $44,872.

New Limerick, 6.69 miles, R. G. Miller Contr. Co., $46,625.

Houlton, 2.72 miles, R. G. Miller Contr. Co., $19,505.

Boston, Mass.—Bids desired until Aug. 10 by Comr. Pub. Wks., for bituminous macadam roadway in Pinehurst St., Clement Ave., both in West Roxbury; asphalt pavt. or bitulithic in St. Francis de Sales St. Roxbury.

★**Massachusetts**—Contract awarded July 28 by Massachusetts State Highway Comn., Boston, for surfacing a section of State highway, about 11,000 ft. in length, in towns of Stoneham and Reading, to Rowe Contr. Co., Brighton, at $19,959; other bids: D. J. Sheehan Co., Lynn, Mass., $24,379; F. J. Mague, West Newton, $20,379; J. A. Gaffey, Medford, $24,033; J. E. Watkins, Amesbury, $20,527.

★Shelbourne—9400 ft. to Lane Constr. Co., Meriden, Conn., at $6,290.

★Buckland—7300 ft. to Lane Constr. Co. at $5,640.

★Northbridge—2400 ft. to Hassam Paving Co. at $5577.

★**Connecticut.** — Following contracts have been awarded by State Highway Commissioner Charles J. Bennett, Hartford:

★Huntington (two sections), one on River Road, 6750 ft., $9,174, and Center Road, about 5750 ft., $7,090; both sections awarded to John Arborio, New Haven.

★Towns of Goshen and Cornwall—About 10,150 ft. of special native stone macadam road to Porcaro Constr. Co., Willimantic, at $11,685.25.

Connecticut.—Bids desired until Aug. 18 by Chas. J. Bennett, State Highway Comr., Capitol, Hartford, for sections of highway improvement in towns as follows:

Middletown—1690 lin. ft. gravel or macadam construction. Plans at selectmen's office, Middletown.

Cromwell—2175 lin. ft. gravel or macadam construction. Plans at house of Seth Paddock, first selectman, Cromwell.

Old Saybrook—1755 lin. ft. gravel or macadam construction. Plans at Town Clerk's office, Old Saybrook.

Danbury—2884 lin. ft. Warrenite, Hassam bituminous concrete, Amiesite, concrete (plain or reinforced) pavement. Specifications at office Director Pub. Wks., Danbury.

Griswold—5075 lin. ft. native stone macadam or native stone or gravel concrete (plain or reinforced) pavement. Also 17,800 lin. ft. native stone macadam resurfacing. Plans at selectmen's office, Jewett City.

Bristol—11,692 lin. ft. gravel or concrete (plain or reinforced) pavement. Plans at City Engineer's office, Bristol.

Manchester—6700 lin. ft. Hassam or concrete (plain or reinforced) pavement. Specifications at Town Clerk's office, Manchester.

Middlebury—5883 lin. ft. gravel construction. Plans at office of A. S. Judd, second selectman, Middlebury.

Norfolk—5550 lin. ft. graded road with 6-in. hardening course. Plans at office of A. P. Curtiss, first selectman, Norfolk.

North Canaan—6500 lin. ft. gravel, limestone or slag road with 2-in. trap rock surface. Plans at selectmen's office, Canaan.

Haddam—28½-ft. span "I" beam concrete slab bridge. Plans at house of P. C. Arnold, first selectman, Haddam.

★**Danbury, Conn.**—Contract for paving with amiesite Lake Ave. awarded by Bd. Aldermen to Chas. T. Eastburn Co., New York City, at $1.05 per sq. yd.

Greenwich, Conn.—Bids were opened July 20 by Town Highway Comn. (Chas. T. Wills, Chmn.), for paving North St. and Hill Road, and contracts were awarded as follows:

★Hill Road awarded to Pierson Eng. Const. Co., 868 Main St., Hartford, as follows: 8100 sq. yds. concrete pavt. with bituminous top, $1.43, or without bituminous top, $1.28; 34 lin. ft. box culverts, $10; 3000 lin. ft. stone gutter, 20 cts.; 150 cu. yds. stone fence, $3; 3100 cu. yds. highway excav., $1.50; 15 tons extra crushed stone, $3; 180 cu. yds. dry rubble retaining wall, $4; total, with bituminous top, $18,388; on plain concrete, $17,173.

★North St. awarded to W. J. Mertz, Portchester, N. Y., 20,500 sq. yds. concrete pavt. with bituminous top, $1.69; without bituminous top, $1.58; 36 lin. ft. c.-i. pipe culvert, $2.60; 96 lin. ft. 12 in., $1.85; 700 lin. ft. stone wall, 50 cts.; 25 tons extra crushed stone, $2.75; total, with bituminous top, $35,335; without bituminous top, $33,089.

Hartford, Conn.—Bids desired until Aug. 19 by Bd. Water Comrs. for constructing new gravel surface road south of Nepaug Reservoir, Contract 7, advertised in Engineering Record. C. M. Saville, Ch. Engr., Pilgard Bldg.

Albany, N. Y.—Bids received until Aug. 17 by State Comn. of Highways, 55 Lancaster St., for constructing and repairing State highways.

Albany, N. Y.—Bids opened July 27 by State Highway Comn., 55 Lancaster St., for construction of public highways by State aid (3 lowest bids on each road):

Road 5501, East Berne-New Salem, Pt. 1, Albany Co., 2.86 miles—Richd. Hopkins, Troy, $33,811; St. Lawrence Constr. Co., Albany, $32,234; Jos. P. Scanlon, Delmar, $33,613.

Road 1204, Plattsburgh City, Broad St., Clinton Co., 0.80 mile—Bluff Point Stone Co., Plattsburgh, $10,024; Boynton & McNally, Keeseville, $10,212; Dana W. Robbins, New York, $9,984.

Road 1035-A, Holland-Glenwood, Pt. 1, Erie Co., 3.13 miles (2 bids)—Serviss & Mackey, Youngstown, $53,516; Ribstine-Holter Co., Rochester, $53,707.

Road 5500, Jay-Lake Placid, Part 2, Essex Co., 7.16 miles—W. F. Boughton Co., Hudson Falls, $80,782; St. Lawrence Constr. Co., Albany, $81,122; Gruner & Hallenbeck, Harriman, $81,671.

Road 468, Little Falls-Fairfield, Herkimer Co., 5.55 miles (only bid)—H. Ward Dickison, Syracuse, $52,519.

Road 5435, Pittsford Village, Monroe & So. Main St., Monroe Co., 0.92 mile—Ribstine-Holter Co., Rochester, $27,316; Schroeder-Hicks Contr. Co., Rochester, $27,355; J. B. Hurley, Inc., Fredonia, $26,524.

Road 5505, Wheatley-East Norwich, Part 1, Nassau Co., 2.93 miles—Municipal Asphalt Co., New York, $46,285; H. J. Mullen Contr. Co., Jamaica, $45,614; Saml. Beskin, Beacon, $46,580.

Road 1136, Pulaski Village, Mill St., Oswego Co., 0.90 mile (2 bids)—A. J. Rockwood, Rochester, $12,348; Ripton & Murphy, Rochester, $13,034.

Road 5504, Dykes' Crossing, Rockland Co., 0.39 mile (one bid)—Paul G. Sanger, Mumsey, $7,618.

Road 5496, Scotia Village, Ballston Ave., Schenectady Co., 0.90 mile—Schenectady Contr. Co., Schenectady, $39,608; Brooks & Julian, Rochester, $41,251; Ballard & Maher, Oneida, $41,578.

Road 1206, Sag Harbor Village, Suffolk Co., 1.56 miles—E. H. Brown, Hempstead, $22,690; H. J. Mullen Contr. Co., Jamaica, $22,628; McDonald Contr. Co., New York, $22,705.

Road 1208, East Islip-Smithtown Branch, Suffolk Co., 9.57 miles—E. H. Brown, Hempstead, $111,200; A. C. Sternberg, Jr., Constr. Co., West Hartford, Conn., $115,076; Eastern Asphalt Paving Co., New York, $108,943.

Road 1207, Croton-on-Hudson, Riverside Ave., Westchester Co., 1.28 miles—Wm. F. McCabe Contr. Co., White Plains, $35,927; John J. Hart, Peekskill, $34,395; Jos. Johnson & Sons, West New Brighton, S. I., $35,205.

Road 1205, Dresden-Penn Yan, Yates Co., 5.18 miles—J. W. Brennan Contr. Co., Geneva, $51,682; Frank V. Brotsch, Rochester, $51,599; Atlanta Constr. Co., Atlanta, $50,201.

Bids opened same time and place as above for repair of public highways by State aid (lowest bid given on each Road):

Rep. Con. 677, Road 5126, Montgomery Co.—John P. Dugan & Co., Amsterdam, $1,094.

Rep. Con. 678, Roads 5109 and 5123, Montgomery Co.—John P. Dugan & Co., Amsterdam, $3,937.

Rep. Con. 679, Road 180, Montgomery Co.—John P. Dugan & Co., Amsterdam, $2,163.

Rep. Con. 680, Roads 864 and 5096, Montgomery & Fulton Cos.—Champlain Const. Co., Saratoga, $5,349.

Rep. Con. 676, Road 139, Oneida Co.—Nash & Griffin, Norwich, $10,415.

Brooklyn, N. Y.—Lowest bid opened by Boro. President, July 29, for regulating and repaving with permanent asphalt pavement on 6-in. concrete foundation, Fulton St. from Reid Ave. to Williams Pl., submitted by Brooklyn Alcatraz Asphalt Co., 407 Hamilton Ave., Brooklyn, as follows: 1510 lin. ft. old curb reset in concrete, 90 cts.; 11,070 lin. ft. new curb set in concrete, $1.20; 200 lin. ft. bluestone heading stones set in concrete, 75 cts.; 3890 cu. yd. concrete, $5; 23,360 sq. yd. asphalt pavt., $1; 40 sq. yd. adjacent pavt., relaid, 40 cts.; 2 sewer basins rebuilt, ea., $75; 74 noiseless heads and covers for sewer manholes, ea., $14; total, $58,805. Totals of other bids: Barber Asphalt Paving Co., 233 Bway., New York, $61,334; Cranford Co., 52 9th St., Brooklyn, $62,472; Uvalde Contr. Co., 1 Bway., New York, $61,516; Borough Asphalt Co., 1301 Metropolitan Ave., Brooklyn, $60,926; Sicilian Asphalt Paving Co., 41 Park Pl., New York, $60,678.

★**Buffalo, N. Y.**—Contracts for paving awarded by Common Council as follows: With asphalt, Alvin St., to Henry P. Burgard, 275 Lathrop St., $39,362; with asphalt, Virginia St. and Dunstan Ave., to German Rock Asphalt & Cement Co., D. S. Morgan Bldg., $8,080 and $11,600, respectively; with brick, Marion Ave., to Erie Contr. Co., D. S. Morgan Bldg., at $5,300.

★**Rome, N. Y.**—Contract awarded July 29 for paving Spring St. with bitulithic to Warren Bros. Co., Boston, Mass., at $5,582. B. F. Coleman, Clk., Bd. Pub. Wks.

★*Items marked thus give the names of parties awarded contracts.*

New York, N. Y.—Bids desired until Aug. 18 by Douglas Mathewson, Pres. Bronx Boro., for paving with sheet asphalt on Kelly, Dawson Sts. and Crotona Ave., in all 21,010 sq. yds., with bituminous concrete on Castle Hill Ave., 24,250 sq. yds. and on Tremont Ave. 25,650 sq. yds., flagging sidewalks on E. 166th St., Allerton Ave. and Sedgwick Ave., in all 1,160 sq. ft.

Rochester, N. Y.—Ordinances adopted by City Council for pavements as follows: Capron St., cost $5,000; Barons St., $3,600; Meigs St., $3,000; McFarlin St., $2,500; Heidelberg St., $7,500; Aberdeen St., $11,000; South St., $22,700.

★**Roslyn, L. I., N. Y.**—Contract for constructing sidewalks on Warner Ave., Garden and Willow Sts. awarded by Town Bd. to Cocks & Dalton, Port Washington, at $5,250.

Bloomfield, N. J.—Bids desired until Aug. 17 by Town Clerk for paving 18th St., Sect. A—11,425 sq. yds. bitulithic, brick or asphalt block pavt., curbing, etc.; Sect. B—3960 sq. yds. bitulithic pavt., curbing, etc.

Elizabeth, N. J.—Bids desired until Aug. 18 by Com. on Roads, Bd. Chosen Freeholders, Elizabeth, for repair of Westfield, or North Ave., in Township of Cranford, including 8848 lin. ft. roadway scarified, 19,603 sq. yds. bituminous macadam, 12,956 lin. ft. hip shoulders and gutters, graded, etc. Jacob L. Bauer, Co. Engr., Elizabeth.

Linden, N. J.—Bids reported desired until Aug. 17 by Township Com. for street improvements. Jacob L. Bauer, Township Engr., Elizabeth.

Paterson, N. J.—Bids desired until Aug. 10 by I. A. Hopper, Clk. Wayne Township, Paterson, R. F. D. No. 1, for grading and macadamizing Garside Lane its entire length. W. L. Whitmore, Engr., Paterson Savings Institution, Paterson.

Ridgefield Park, N. J.—Bids desired until Aug. 18 by Village Clk. for improving Bergen Ave. approximately 4225 cu. yd. excav., 10,872 sq. yd. Amiesite, 4445 lin. ft. curb, etc., advertised in Engineering Record.

★**Chester, Pa.**—Contract for constructing drives, walks, concrete bridge at Alfred O. Deshong Memorial Park awarded to John Hanna & Sons, Chester, at about $24,000.

Philadelphia, Pa.—New bids desired until Aug. 12 by Dept. Pub. Wks. for paving and repaving and surfacing streets with asphalt, paving with vitr. block, repaving with granite blocks, surfacing and resurfacing country roads.

Bids desired until Aug. 18 by Dept. Pub. Wks., for continuing improvement of Northeast Boule. and work incidental thereto.

★**Pittsburgh, Pa.**—Contract for constructing Haysville section of Emsworth and Haysville Rd. awarded by County Comrs. to D. W. Challis & Co., Sewickley, at $14,963.

★Contracts for repaving (bids opened July 20) awarded as follows: To Booth & Flinn, Ltd., for Ellesmere, Garrison and Ross Sts. and First Ave., $12,717; to Barber Asphalt Paving Co., for Liberty Ave., $9,250; to Geo. S. White Co., for Plum and State Alleys, $15,436; and to W. J. Payne, Jr., Co., for Saphire, Antwerp and Merriman Alleys, Belmont St. and Boggs Ave., $14,431 (bidders all of Pittsburgh). Robt. Swan, Dir. Dept. Pub. Wks.

Sharpsburg, Pa.—Bids desired until Aug. 10 by Boro. Clerk for approximately 3485 ft. curb and 4080 sq. yd. block brick pavt. on Main St.

Sunbury, Pa.—See "Bridges."

Verona, Pa.—Bids desired until Aug. 12 by Street Com. for laying sidewalks on portions of Parker, Poplar, High and Brunot Sts., and South and 3d Aves., in all, approximately 25,580 sq. ft. Douglass & McKnight Bros., Engrs., 1709 Union Bank Bldg., Pittsburgh.

Towson, Md.—Bids desired until Aug. 11 by Co. Comrs. for resurfacing Old Court Road, 2 miles; Old Hanover Road, 1 mile; Freelands Road, 1 mile.

Washington, D. C.—Plans being considered for constructing road from Arlington Cemetery to connect with road to Mt. Vernon; cost about $60,000.

Bids desired until Aug. 18 by Comrs. D. C. for paving various streets and avenues in the District of Columbia with sheet asphalt, asphaltic concrete and asphalt block, advertised in Engineering Record.

★**Richmond, Va.**—Contract for paving with asphaltic concrete 5500 sq. yd. on Porter St. awarded by Administrative Bd. to Atlantic Bitulithic Co. at $1.58 per sq. yd.

Wheeling, W. Va.—Bids reported desired until Aug. 27 by Co. Comrs. for resurfacing about 6 miles of road with brick, bituminous or bitulithic; probable cost, $70,000. Geo. Steenrod, Co. Engr.

Williamson, W. Va.—Bids desired until 8 p. m., Aug. 10, by City Recorder, for about 50,000 sq. yds. brick bituminous macadam and concrete pavt., 51,000 lin. ft. curb and 5000 lin. ft. sewers. N. H. Mannakee, City Engr.

★**Birmingham, Ala.**—Contracts awarded by Bd. Comrs. for paving as follows: 34th Ave. with asphaltic concrete, to Southern Bitulithic Co., Nashville, Tenn., at $9,299, and with asphalt, 9500 sq. yd.; 250 sq. yd. brick and 1000 yd. concrete gutters on south side, to Dunn & Lallande Bros., Birmingham, at $9,299.

Marion, Ala.—Bids desired until Aug. 18 by Co. Comrs. Marion for grading, draining and surfacing with gravel part of Burrough's Ferry Road. W. S. Keller, State Highway Engr., Montgomery.

New Orleans, La.—City Council contemplates paving Prytania, Laurel, Valmont and Constance Sts.

Louisville, Ky.—Bids desired until Aug. 21 by Secretary Bd. Pub. Wks., for paving with vitr. block on portions of several alleys.

Cambridge, O.—Bids reported desired until Aug. 14 by County Comrs. for improving the Cambridge Caldwell Road, brick, 2 miles, 16 ft. wide. G. Weedon, Co. Engr.

Cleveland Heights, O.—Bids desired until Aug. 17 by Village Clerk, 309 Beckman Bldg., Cleveland, for paving with brick, asphalt, asphalt macadam or asphalt block and constructing sidewalks, Taylor Road; also same time separate bids for constructing storm and sanitary sewers, also 10-in. water main in said street.

Centerburg, O.—Bids desired until Aug. 14 by Village Clerk for paving with vitr. brick on a portion of Main St.

Cincinnati, O.—Bids desired until Aug. 12 by Dir. Pub. Service for paving with asphalt and granite on Jefferson Ave.

Columbus, O.—Bids desired until Aug. 18 by Director Pub. Service for paving with brick, asphalt or treated macadam portions of Bryden Road, Reynolds, Starr and 3d Aves. and Buckingham and 7th Sts.

Lorain, O.—Bids desired until Aug. 18 by Co. Comrs. for macadamized Case Road, in Avon Township, about 1 mile; also same time for grading and macadamizing North Ridge Road, Sect. No. 2, Avon Township, a distance of about 3 miles.

Ohio—Bids desired until Aug. 14 by State Highway Comr., Columbus, for State highway work, Noble County, as follows: Paving with brick Caldwell-Marietta Road, Olive Township, 6025 ft., estimated cost $25,478.73, and Caldwell-McConnelsville Road, Olive Township, 2160 ft., cost $8,730.

Painesville, O.—Bids reported desired until Aug. 20 by County Comrs. for furnishing material and grading, draining and paving with brick, concrete base, road in Willoughby Township.

Smithfield, O.—Bids desired until Aug. 25 by County Aud., Steubenville, for constructing about ½ mile of brick road in Smithfield.

Urichsville, O.—Bids desired until Aug. 15 by Village Clk. for grading, curbing and paving Newport Ave. with fire clay brick or blocks.

Waldo, O.—Bids desired until Aug. 13 by Corporation Clerk for paving with vitr. brick, or block or asphalt block on concrete foundation on Marion St., about 5450 sq. yds.

Wapakoneta, O.—See "Bridges."

★**Ft. Wayne, Ind.**—Contract for constructing 6 miles macadam road on county line between Eel River Township, Allen County, and Swan Township, Noble County, awarded by County Comrs. to Romy Chevelot, Jackson Township, Allen County, at $32,772.

Gary, Ind.—Bids were opened July 27 for paving 6th Ave. with Trinidad Asphalt pavement as follows: M. D. Heiny, Gary, $18,698; E. W. David, Gary, $18,964.

Huntington, Ind.—Lowest bid opened by Bd. Pub. Wks. for 10,100 sq. yd. brick pavement on 1st St. submitted by C. C. Huffin & Co., Portland.

Indiana.—Bids will be received as follows by the Co. Comrs. for paving:

Until Aug. 12:

At Greencastle, constructing 3 macadam roads in Greencastle Township. C. L. Airhart, Co. Aud.

Aug. 14:

New Albany, constructing a road in Greenville Township. Julian T. Miller, Co. Aud.

Until Aug. 24:

Ft. Wayne, constructing a concrete road in Adams Township. Calvin H. Brown, Co. Aud.

Aug. 31:

Warsaw, county line gravel road. Wm. C. Miller, Co. Aud.

Until Sept. 8:

Danville, four roads in Eel River and Brown Townships. Lewis W. Borders, Co. Aud.

Until Sept. 15:

At Auburn, road on line between Butler and Jackson Townships. A. W. Madden, Co. Aud.

Indianapolis, Ind. — Following bids opened by Bd. County Comrs. for furnishing 200,000 gal. road oil: Indiana Refining Co., 17 Battery Pl., New York, N. Y., 3.3 cts. per gal., and Campbell-Zartman Co., 3.75 cts. per gal.

Milford, Ind.—Bids desired until Aug. 24 by Town Clerk for paving 1 mile of streets, brick and concrete curb and gutters. Amandus M. Smith, of Elkhart, Engr.

★**Grand Rapids, Mich.**—Contract for paving awarded by Bd. Pub. Wks. as follows: Washington St., S. E., to Carpenter & Anderson, $9,819; Madison Ave. to McDermott & Cooper, at $5,417.

Bloomington, Ill.—Council has ordered a brick pavement on N. Clinton St.; estimated cost, $8,873. E. Tolson, City Engr.

★**Herrin, Ill.**—Contract for 24,800 sq. yds. brick pavement and 10,125 lin. ft. sandstone curb in Dist. No. 1 awarded by Bd. Local Improv. to Herrin Contr. Co., at about $63,000.

Illinois.—Bids desired until Aug. 11 by State Highway Comn., Springfield, for State Aid work in counties as follows—all cement to be furnished by State. (Type of construction, (a) concrete, (b) brick.) A. N. Johnson, State Highway Engr.:

County.	Route.		Length Ft.	Cost.
Will	2	(a)	9,300	$14,855.30
Will	13	(a)	10,800	19,300.43
Warren	7	(b)	5,500	12,316.00
Warren	12	(b)	4,000	9,530.00
Logan	7	(a)	3,600	5,689.47
Kankakee	1G	(a)	9,200	17,712.00

Bids desired until Aug. 19 by State Highway Comn., Springfield, for State Aid work in counties as follows—all cement to be furnished by State (Type of construction (a) concrete; (b) brick.) A. N. Johnson, State Highway Engr.:

Counties	Route	Length, ft.		Cost
Crawford	3	18,048.8	(a)	$19,584
Clay	5	3,300	(a)	4,763
Boone	1	4,500	(a)	6,452
Douglas	11	2,520	(b)	5,314
Douglas	3	4,500	(b)	9,146
McHenry	1	2,600	(a)	4,895
McHenry	11	1,500	(a)	3,066

Lake Villa, Ill.—Bids reported desired until Aug. 15 by Comrs. Highways, Lake Villa Township, for grading and hard gravel road and 2 concrete culverts an Antioch Road.

★**Peoria, Ill.**—Contract for paving with brick Russell St. awarded by Bd. Local Improv. July 27 to Douglas A. Myers, Peoria, as follows: 4850 yds. excav., 46 cts.; 5590 ft. cement curb, 36 cts.; 5590 ft. cinder foundation, 2 cts.; 335 ft. stone protection curb, 10 cts.; 9680 yds. concrete foundation, 55 cts.; 9680 yds. sand cushion, 4 cts.; 9680 yds. brick pavt., 94 cts.; adjustment sewers etc., $50; total, $19,345. Other bids: Canterbury Bros., $19,448; John McAllister, $20,301; McElwee & Bushell, $20,036 (bidders all of Peoria).

Portage, Wis.—Lowest bid opened by City Council, July 24, for 23,000 sq. yd. brick pavement submitted by J. Rasmussen & Son Co., Oshkosh, at $48,754.

★Contract for 6400 sq. yd. macadam pavement on Wisconsin River Rd. awarded by City Council to Davis Bros. Stone Co., Lannon, at 60 cts. per sq. yd.

Reedsburg, Wis.—Bids reported desired until Aug. 14 by Dept. Pub. Wks. for brick pavt. on 4 streets.

Cedar Rapids, Ia.—City Council voted to pave 19 blocks.

★**Dubuque, Ia.**—Contract for paving with asphaltic concrete Rhomberg Ave. awarded by City Council to Jas Lee, at about $60,000.

★**Duluth, Minn.**—Contract awarded July 27 for paving 24th Ave. East with asphalt to J. A. Johnson, Duluth, at $6,475. Other bidders: King & Runquist, $6,900; D. H. Clough & Co., $6,775; W. F. King, $7,408. Contractors all of Duluth.

St. Paul, Minn.—Bids desired until Aug. 10 by Purchasing Agent, Court House and City Hall, for grading and improving Como Ave., W., also same time and place separate bids for constructing, relaying and repairing cement sidewalks for the balance of the season of 1914.

Parsons, Kan.—Bids desired until Aug. 10 by City Clerk for paving with asphaltic concrete on portions of Washington Ave. and 18th, and 24th Sts., in all 4700 sq. yd.

Auburn, Neb.—All bids opened on July 27 for paving Courthouse Ave., Dist. 3, have been rejected. John A. Beebe, Nebraska City, bid for the work $22,500. W. B. Fisher, City Clk.

Bids reported desired until Aug. 25 by County Comrs. for improving about 1465 ft. public road, estimated to cost $3,385.

Lincoln, Neb.—Bids desired until Aug. 11 by City Clerk for paving with asphaltic concrete and vitr. brick on Wood and Elm Sts., Paving Dist. No. 272; estimated cost, $16,500.

Yankton, S. D.—Bids desired until Aug. 21 by City Auditor for curbing various streets, in all about 8037 lin. ft., also paving with Portland cement portions of 3d, Cedar, Walnut Sts., Broadway and Douglas Ave., in all 23,621 sq. yds. Stanley H. Edmunds, City Engr.

Missoula, Mont.—City Council contemplates paving Stevens St.; cost about $32,000.

Terry, Mont.—Bids reported desired until Aug. 12 by City Clerk for constructing approximately 33,600 sq. ft. concrete sidewalks. Gerharx Jacqueth Eng. Co., Great Falls.

Kansas City, Mo.—Bids desired until Aug. 17 by County Surveyor Kansas City, for grading and draining Blue Mills and Sibley Rds., including 58,840 cu. yds. earth excav., 6500 cu. yds. rock excav., 420 cu. yds. plain concrete, etc.

Bids desired until Aug. 10 at 2 p. m. by Secy. Bd. Park Comrs., for paving with bituminous macadam Gillham Rd.

★**Denison, Tex.**—Contract for 3300 sq. yds. brick paving awarded to J. C. Feild Eng. Co., Feild Bldg., Denison.

El Paso, Tex.—County Comrs. voted to construct asphalt macadam road from Ysleta to Quadrilla; cost about $100,000.

Bartlesville, Okla.—City Comrs. voted to pave Dewey Ave. and Wyandotte Ave.

Colfax, Wash.—County Comrs. approved plans for constructing 4½ miles Permanent Highway No. 9.

★**Goldendale, Wash.**—Contract for constructing Highway No. 3 in Goldendale awarded by State Highway Comn. Olympia, to Saulsberry & Nelson, Prosser, at $8,000.

Molson, Wash.—Plans for high school to be prepared by J. L. McCauley, New York Blk., Seattle; cost, $30,000.

★**Olympia, Wash.**—Contract for constructing National Park Highway awarded to Raymond Constr. Co., Raymond Wash., at $9,471.

Seattle, Wash.—Plans have been submitted to Bd. Wks. by A. H. Dimock, City Engr., for paving as follows: Paving Ewing St., cost, $31,000; resurface with asphalt, Elliott Ave., $20,000.

Following bids opened by Bd. Pub. Wks. July 24 for paving California Ave.: F. M. McLellan, Globe Blk., $109,820; P. J. McHugh, $134,846; A. J. Baumgartner, $123,361; R. G. Steveston, $123,559, and K. Sauset, $118,067.

Spokane, Wash.—Bids desired until Aug. 13 by Comr. Pub. Wks. for grading, curbing and paving Mallon Ave. and Post St.

Tacoma, Wash.—Plans completed by City Engineer for constructing 190,000 sq. yd. concrete sidewalks in Roosevelt Addition; cost about $20,000.

Eugene, Ore.—Lowest bid opened for grading and curbing 9th Ave. submitted by Clark & Henery Constr. Co., Sacramento, at $15,710.

Hood River, Ore. — Bids reported desired until Sept. 1 by State Highway Engr., Salem, for constructing Columbia Highway in this county cost $75,000.

Portland, Ore.—Contract about to be let by County Comrs. for paving Baseline Rd.; cost about $133,000.

★**Azusa, Cal.**—Contract for constructing sidewalks on 10th St. awarded to E. A. Simmons at $8,103.

California.—Bids desired at the office of the California Highway Comn., Room 515, Forum Bldg., Sacramento, Cal., until Aug. 24, 1914, for constructing State highway as follows (Austin B. Fletcher Highway Engr.):

Santa Barbara County, from Orcutt to Santa Maria, about 6.5 miles of Portland cement concrete, with asphalt wearing surface.

San Benito County, from San Juan Bautista to northerly boundary, about 4.0 miles in length, of Portland cement concrete.

Kern County, from Grapevine Creek to Sections 5 and 6, about 17.3 miles in length, Portland cement concrete.

San Diego County, from La Mesa to El Cajon, about 1.6 miles in length, to be built of Portland cement concrete.

★**Mayfield, Cal.**—Bd. Trus. awarded contract for paving ¾ mile on Main St. to Roadamite Co., Los Angeles.

Petaluma, Cal.—About $100,000 bonds sold for street improvements in Petaluma.

Sacramento, Cal.—All bids opened by State Highway Dept. for constructing 17 miles road out from Bakerfield south rejected. According to reports, new bids will be received.

★**Ft. Huachuca, Ariz.**—Contract for road improvements here awarded to R. C. Sparks and J. H. Fritz, Tucson, Ariz., at $9,779.

St. John, N. B.—Orange St. is to be paved at cost of $9,208.

Ridgeway, Ont. — Four lowest bids opened July 31 for paving about 1½ miles of street or road, known as Erie Road Extension, to be constructed of water-bound macadam concrete, rocmac or tarvia, etc. John Derson, Stevensville, $12,800; McRae & Champaign, Niagara Falls, $17,750; Terschleesen & Smith, Crystal Beach, $23,200; J. F. Langely, $24,000.

Trenton, Ont.—Bids desired until Aug. 12 by Town Treasurer for $15,000 street paving bonds.

★**Regina, Sask.**—Contracts awarded by City Comrs. for paving as follows: To Bitulithic & Contr. Ltd., Regina, 22,293 sq. yds., $2.85; and National Paving & Contr. Co., Ltd., Regina, 21,496 sq. yds., $2.75.

★**New Westminster, B. C.**—Contract for paving Queens Ave., 6th St. and 5th Ave. awarded to Bitulithic Paving Co. at $150,000.

★*Items marked thus give the names of parties awarded contracts.*

★**South Vancouver, B. C.**—Contract awarded to Columbia Bitulithic Co., Vancouver, for paving Victoria Road from Kingsway to 43d Ave. with bithulithic pavement, at $71,816.

Other bids received on above work (a), asphalt concrete, (b) sheet asphalt, (c) Lithar, (d) Dolarway, (e) bitulithic. H. J. Kaiser, (a) $68,424; (b) $71,250; Harrison & Wall, (c) $59,907; (d) (2 bids), 6 in., $60,938, 5 in., $58,188; M. P. Cotton Co., (a) $64,391; City of Vancouver municipal paving plant, (d) $60,400; (a) $77,477; (e) $86,376; Ledingham & Cooper, (a) $87,368.

STREET CLEANING AND GARBAGE DISPOSAL.

Items Arranged Geographically

Philadelphia, Pa.—Bids desired until Oct. 16 (readvertisement) by Dir. Pub. Wks., for removal and disposal of garbage, dead animals, etc., for year 1915, together with all work incidental thereto.

Royston, Ga.—See "Water Works."

Akron, O.—Bids opened July 30 for constructing garbage reduction plant buildings from plans of R. Winthrop Pratt, Consulting Engr., Cleveland: J. C. Devine Constr. Co., Alliance, $44,050; Masters & Mullen Constr. Co., Cleveland; $48,350; Pitt Constr. Co., Pittsburgh, Pa., $52,460; Duquesne Contr. Co., Pittsburgh, Pa., $58,456; Carmichael Constr. Co., Akron, $61,277.

Columbus, O.—Bids were opened July 29 by Director Pub. Service for furnishing material and constructing refuse disposal plant No. 4 and following are reported to be lowest bidders: E. H. Latham, for new incinerator plant building at $18,286, and Alvey-Ferguson Co., Cincinnati, for installation of machinery at $3,820.

Biloxi, Miss.—Dr. T. O. Hunter, City Physician, advocating erection of an incinerating plant.

Toronto, Ont.—At a meeting of Council, July 30, the garbage disposal scheme was killed, and it is said that another year may elapse before anything further will be done.

HYDRAULIC CONSTRUCTION AND RIVER IMPROVEMENTS.

Items Arranged Geographically

★**Dredging — Boston, Mass.** — Contracts reported awarded Aug. 4 by State Bd. Harbor and Land Comrs. for dredging as follows: To Bay State Dredging Co., Ltd., for Rockport Harbor, $12,750 and Smith's Cove, Gloucester, $5,000; and to John H. Gerrish Co., for Mill River, at $5,000.

Sea Wall—Boston, Mass.—Three lowest bids opened by Metropolitan Park Comn., Aug. 4, for building concrete wall at Revere Beach Reservation: M. J. McGawley, Boston, $21,055; Rowe Contr. Co., Brighton, $23,000; T. Stuart & Sons Co., Newton, $24,105.

State Canal Work—Albany, N. Y.—Bids desired until Aug. 25 by Duncan W. Peck, State Supt. Pub. Wks., Albany, for barge canal work as follows: Contr. 46-A, Erie Canal, Sect. 7—Constructing canal from Fox Ridge to Montezuma Aqueduct; length, 4.49 miles, Sheets 1 to 31 inclusive. Contr. 125, Erie Canal, Sect. 2—Constructing substructure and superstructure and approaches of Vischer's Ferry Rd. viaduct over Troy-Schenectady Branch of N. Y. C. & H. R. R. R. Sheets 1 to 6 inclusive. Contr. 126, Champlain Canal, Sect. 1—Raising highway bridge at Mechanicsville, Sheets 1 and 2.

State Canal Work—Albany, N. Y.—Bids were opened at the office of State Supt. of Public Works July 28 on Barge Canal Contracts Nos. 119 and 120.

Contract 119, furnish and drive a quantity of sheet steel piling, extend a concrete apron and other incidental work at movable dam over barge canal at Rotterdam: Holler & Shepard, Rochester, $58,073; Frank M. Skene, Brockport $62,212; Walsh Construction Co., Davenport, Ia., $60,986; Lupfer & Remick, Buffalo, $68,471; John M. Rogers, Tonawanda, $70,610. Engineer's estimate, $64,666.

Contract 120, reinforcing superstructures of movable dams on Mohawk River at Rotterdam, Cranesville, Amsterdam, Tribe's Hill, Yosts, Canajoharie and Fort Plain: Whitehead-Kales Iron Works, Detroit, Mich., $265,954; Lupfer & Remick, Buffalo, $299,460; Ft. Pitt Bridge Works, New York, $287,994; Penn Bridge Co., Beaver Falls, Pa., $268,926. Engineer's estimate, $273,484.

State Canal Work and Bridge—Albany, N. Y.—Bids desired by State Supt. Public Works until Aug. 11 for construction of a new bridge over Erie Canal in Yorkville, and for constructing a new lock in Shinnecock and Peconic Canal, in Suffolk County. The Yorkville bridge is estimated to cost about $108,000.

★**Dam, etc.—Gilbertville, N. Y.**—Contract for construction of earth dam, diversion channel and pipe lines has been awarded to Suburban Eng. Co., 15 W. 38th St., New York, at $23,957 (bids opened July 15). Engineers, Vrooman & Perry, Blood Bldg., Amsterdam.

Pier Improv.—New York, N. Y.—Bids desired until Aug. 14 by Comr. Docks & Ferries, Pier A, New York, for repairs to pier at E. 117th St. and Harlem River, Boro. Manhattan, Contract No. 1435.

River Improvement—Rochester, N. Y.—Bids desired until Aug. 12 by Bd. Contract and Supply, for constructing movable dams and deepening Genesee River bed; also deepening channel, Genesee River.

Wharf Repair—New Castle, Del.—Bids desired until Aug. 11 by City Council for repairing Delaware St. wharf.

Dredging, Wilmington, Del.—Bids desired until Aug. 18 by Maj. E. N. Johnston, Corps Engrs., U. S. A., Wilmington, for dredging Maurice and Salem Rivers, N. J., and Little River, Del., advertised in Engineering Record.

Dredging—Wilmington, N. C.—Bids desired until Sept. 8 by Maj. H. W. Stickle, Corps Engrs., U. S. A., Wilmington, N. C., for dredging in waterway from Core Sound to Beaufort Harbor, N. C.; advertised in Engineering Record.

Levee Work—New Orleans, La.—Bids desired until Aug. 12 by Comrs. Pontchartrain Levee Dist. at office of Bd. State Engrs., Rm. 213, New Orleans Court Bldg., New Orleans, for Sauve Levee, Jefferson Parish, Mississippi River, left bank, approximately 35,000 cu. yds.

Also same time and place as above for following levee work: Mississippi River, left bank, Conrad Point Levee, Parish of East Baton Rouge, enlargement, approximately 150,000 cu. yds.; Old Hickory to Chatham Levee, Parish of Iberville, right bank, enlargement, approximate 175,000 cu. yds.

Red River, right bank, Parish of Avoyelles, Jeasons Point Levee (new), approximately 3000 cu. yds.; Barbins Landing Levee (new), 12,000 cu. yds.; Snoddy Crevasse Levee (new), 8000 cu. yds.; Edwards Point South Levee, enlargement, 15,000 cu. yds.; Clark Place South Levee, enlargement, 35,000 cu. yds. Frank M. Kerr, Ch. State Engr., Baton Rouge

★**Levee—New Orleans, La.**—Contracts for constructing levee work, etc. (bids opened by Bd. State Engrs., 213 New Orleans Court Bldg., New Orleans, July 28), awarded as follows: Morrison Bros., Brooks, 30,000 cu. yds. Dorma Vista Levee, 14.35 cts.; Walker & Hill, Lake Providence, 175,000 cu. yds. Longwood Levee, 17.85 cts.; Donavan & Daley, Lake Providence, 170,000 cu. yds. Mascot Levee, 19.40 cts.; Hearin & Ryan, Baton Rouge, 78,000 cu. yds. Carroll Levee, 14.98 cts.; Gibson Bros., R. F. D. Sta. 1, New Orleans, 80,000 cu. yds. Paydras Levee, 18.30 cts.; Clark & Harris, Natchez, Miss., 125,000 cu. yds. Millikens Bend Levee, $19.80; Leonard & Cheshire, Memphis, Tenn., 75,000 cu. yds. Cabin Teele Levee, 28 cts.

Drainage Canal Work—New Orleans, La.—Bids desired until Oct. 2 by Sewerage and Water Bd. for constructing lines and covered drainage canals, Contracts 68-D and 69-D; extension to pumping station No. 6, Contract 67-D; valves and details for drainage system, Contract 70-D; advertised in Engineering Record. Geo. G. Earl, Gen. Supt.

Ditch—Valparaiso, Ind.—Bids reported desired by County Comrs. for construction of Calumet ditch, to change course of Little Calumet River and reclaim 13,000 acres of swamps in northwestern Indiana.

Drainage Pump. Plant—Pekin, Ill.—Bids desired until Aug. 26 by Comrs. Banner Special Drainage and Levee Dist., at office of W. R. Curran, attorney, Pekin, for an electrically driven drainage pumping plant, complete, to contain one 36 in. and one 20 in. motor driven centrifugal pumps, the 2 pumps to have a combined capacity of 92½ cu. ft. per second against a maximum static pumping head of 20 ft. Harman Eng. Co., Engrs., Peoria.

Drilling Foundation at Dam Sites—Nashville, Tenn.—Bids opened July 17 by Maj. H. Burgess, Corps Engrs., U. S. A., Nashville, for drilling subsurface investigations of foundations at Dam Sites Nos. 2 and 3, Muscle Shoals, Tennessee River: (a) J. A. Brennan Drilling Co., 30 Carsin St., Pittsburgh, Pa., $42,508; (b) Giles & Clark, 30 Church St., New York, $69,170; (c) H. R. Ameling Prospecting Co., Liggett Bldg., St. Louis, Mo., $103,374; (d) T. A. Scott Co. Inc., New London, Conn., $105,301; (e) Sprague & Henwood, Inc., Scranton, Pa., $40,430; (f) Sullivan Machine Co., 122 S. Michigan Ave., Chicago, $110,335:

	(a)	(b)	(c)	(d)	(e)	(f)
9810 lin. ft. rock hole diamond drilling	$3.75	$6.50	$9.90	$8.93	$3.25	$9.00
9810 lin. ft. rock hole percussion drilling (alternative)	2.50	7.00	....	....	....	....
2330 lin. ft. overburden hole	2.00	2.00	2.50	5.75	3.25	9.00
Testing holes, ea. 115 ft., per lin. ft.	4.00	3.00	2.00	20.00	5.00	5.00
Detailed retesting of leaky holes, 200 5-ft. lengths (per 5-ft. depth of portion of hole actually retested)	3.00	2.00	1.00	10.00	2.00	2.50

★**Levee—Jacksonville, Ill.**—Contract for constructing approximately 174,432.2 cu. yds. levee work, and 1500 cu. yds. ditch work (bids opened July 29) awarded to Essex Constr. Co., 279 Highland Ave., Buffalo, N. Y., at $22,590. Bartson & Millard, Mayer Bldg., Peoria, bid for the work $26,545. Engineers, Jacksonville Eng. Co., Jacksonville.

Drainage Work—Sac City, Ia.—Bids desired until Aug. 18 by Bd. Superv. for constructing extension to Drainage Dist. No. 29. Estimated quantities: 4007 ft. 36-in. tile; one bulkhead and 2 manholes; 1000 ft. open ditch work, consisting of 1148 cu. yds. excav. J. Wilbur Neal, Co. Aud.

Dam—Kirksville, Mo.—J. T. Dockery, Kirksville, writes all bids opened Aug. 1 by Adair Drainage Dist., Kirksville, for constructing 2 dams across Chariton River of sufficient height to run water through drainage ditch have been rejected.

Levee—Eagle Lake, Tex.—J. C. Nagle, Chmn. State Bd. of Engrs., Austin, has made a favorable recommendation on construction of a protection levee in Colorado County below Eagle Lake. The proposed levee will protect 20,000 acres from floods and will be about 10 miles in length and cost $100,000.

Wharves, Etc. — Houston, Tex. — See "Sewerage and Sewage Disposal."

Irrigation Work—Delta, Colo.—Bids desired until Aug. 13 by Dept. Interior, U. S. Reclamation Service, Montrose, for constructing Cade lateral, laterals Nos. 1 and 2 and Garnet Mesa lateral of Cade and Union lateral, and laterals Nos. 1 and 2 of the Union lateral, East Canal System, Uncompahgre Valley project, vicinity of Delta. This work involves the excavation af about 148,000 cu. yd. material in open cut.

Irrigation Work—Montrose, Colo.—Bids desired until Aug. 12 by U. S. Reclamation Service, Montrose, for constructing Cade Lateral, Laterals Nos. 1 and 2 and the Carnet Mesa Lateral of the Cade and the Union Lateral of the East Canal system, Uncompahgre Valley project, in vicinity of Delta, involving about 148,400 cu. yds. material in open cut.

★**Irrigation—Montrose, Colo.**—The Secretary of the Interior has authorized U. S. Reclamation Service to execute contract with Maurice A. Wogan, Denver, Col., for construction of Selig Canal on Uncompahgre irrigation project. The work involves 145,000 cu. yds. excav.; contract price, $26,956.

Sea Wall—Seattle, Wash.—A resolution providing for construction of sea wall from Washington St. to Madison St. and the filling and paving with brick of Railroad Ave., at an estimated cost of $200,000, has been recommended for adoption by Streets and Sewer Com. of City Council.

Bulkhead—Seattle, Wash.—Plans reported completed by City Engr. for constructing bulkhead along East Waterway; cost about $25,000.

Docks—Seattle, Wash.—The Grand Trunk Pacific pier and the Coleman dock reported to have been seriously damaged by fire July 30.

River Improvement—Tacoma, Wash.—Bids desired until 2 p. m., Aug. 12, by W. J. Roberts, Ch. Engr., Inter County River Improv., Rm. 401 Court House, Tacoma, for dredging and bulkhead construction necessary to complete a change of channel in the Puyallup River, near Puyallup, in Sect. 20, Township 20, North Range 4 East W. M., Pierce County. Approximate quantities: 550,000 cu. yds. excav.; 54,000 lin. ft. piles; 1,310,000 ft. common lumber; 37,500 lbs. iron and steel; 16 acres clearing and grubbing; 1000 cords fir brush in place.

★**Dock—Portland, Ore.**—A permit was issued July 23 to the city authorizing construction of a Class D dock on E. Water St., extending from Washington to Oak; estimated cost, $250,000. Contractors, Guthrie, MacDougal & Co., Portland.

Docks—Portland, Ore.—Contract reported awarded to the Elliott Constr. Co. for constructing 2 docks for B. M. Lombard, each 400 ft. long and 120 ft. high, at south end of Mock's bottom; cost of each about $70,000.

Wharf Extension—Los Angeles, Cal.—Harbor Comn. instructed its engineers to prepare plans and specifications for extension of concrete wharf on municipal dock No. 1 from its present termination to pierhead line and across southerly end of Huntington fill, a distance of 2000 ft.; cost, about $632,000.

Channel Work—San José, Cal.—Bids desired until Aug. 17 for improvements and rectification of channel of Campbell Creek along Congress Hall, opposite Knowles and Stanfield Quarry. J. G. McMillan, County Surveyor.

★**Wharf—San Francisco, Cal.**—Contracts have been signed between Key Route system and San Francisco Bridge Co., whereby $475,000 worth of construction work is to be done at Key Route mole and wharf before close of 1914.

Irrigation Work—Phoenix, Ariz.—Bids desired until Aug. 13 by U. S. Reclamation Service, Los Angeles, Cal., for furnishing electrical apparatus for Salt River Project, Ariz.

Irrigation—Phoenix, Ariz.—Bids desired until Aug. 24 by U. S. Reclamation Service, Phoenix, for constructing Wallace Feeder Canal on Salt River project, Ariz., advertised in Engineering Record. Work is located near Phoenix and involves excav. of approximately 68,000 cu. yds. material and 275 cu. yds. of plain and reinforced concrete in structures, 80 sq. yds. grouted paving, laying 160 lin. ft., 18-in. concrete pipe and the erection of 4 bridges, involving the use of 16,480 ft. lumber and 9600 lbs. steel and iron.

★**Irrigation—Phoenix, Ariz.**—The Secretary of the Interior has authorized the U. S. Reclamation Service to execute contract with General Electric Co., of Schenectady, N. Y., for furnishing one vertical alternating current generator for the Salt River irrigation project at $23,852, including freight.

Wharf—Hamilton, Ont.—Bids desired until Aug. 31 by Secretary Dept. Pub. Wks., Ottawa, Ont., for constructing a wharf and approaches at the foot of Wentworth St., Hamilton.

Wharf—Kensington, Ont.—Bids desired until Aug. 31 by Secretary Dept. Pub. Wks., Ottawa, Ont., for constructing a wharf at Kensington Algoma Dist.

★**Dredging — Ottawa, Ont.**—Dept. of Pub. Wks. reported to have awarded contract to C. S. Boone Dredging & Constr. Co., Ltd., 17½ Adelaide St., Toronto, for dredging at Little Detroit River, Ontario, at $12,000, and to Soo Dredging Co., Ltd., dredging contract at Bruce Mines, at $6,975.

Trent Canal Work—Peterborough, Ont.—Bids desired until Aug. 17 by L. K. Jones, Asst. Deputy Minister and Secy. Dept. Railways & Canals, Ottawa, Ont., for Bobcaygeon Sect., Trent Canal.

Cement for Welland Canal Work—St. Catharines, Ont.—Bids desired until Aug. 25 by L. K. Jones, Asst. Deputy Minister and Secy. Dept. Rys. & Canals, Ottawa, Ont., for furnishing 2,500,000 bbl. Portland cement required in construction of Welland Ship Canal, to be delivered as work progresses; estimated that total amount will be consumed within the next 4 years.

POWER PLANTS.

Items Arranged Geographically

Haverhill, Mass.—The Haverhill El. Co. contemplates placing its wires on Essex and Wingate Sts. in underground conduits.

Belleville, N. Y.—Public Service Comn. has approved construction of an electric plant and transmission lines and the exercise of a local franchise by Harlow E. Ralph.

Geneva, N. Y.—The Central New York Gas & Electric Co., of Geneva, will expend $83,562 for poles, fixtures, line transformers, distribution system, service lines and meters and for power plant equipment in Geneva, Waterloo, Palmyra, Lyons and other places.

Bayonne, N. J.—The Public Service Electric Co. has submitted proposition to City Council providing for installing its wires in underground conduits. The company agrees to expend $25,000 on the work the first year and $10,000 each year thereafter until completed.

Bordentown, N. J.—Installation of a municipal electric light plant under consideration by the Citizens' League and the City Comn.; cost estimated at $40,000.

Cettysburg, Pa.—Town Council passed resolution providing for municipal electric light plant; also employment of an engineer to prepare plans, specifications and estimates.

Clifton Forge, Va.—Within next six months the Virginia Western Power Co., Clifton Forge, expects to erect 50 miles of transmission lines and several substations.

Winnsboro, S. C.—See "Water Works."

Bay Minette, Ala.—See "Water Works."

Maben, Miss.—F. H. Mudd reported to have petitioned for franchise for electric light plant.

Meridian, Miss.—See "Sewerage and Sewage Disposal."

Breaux Bridge, La. — See "Water Works."

Mason, O.—Arrangements have been made for construction of a municipal electric-light plant, for which $14,000 in bonds have been issued.

★**Tell City, Ind.**—Contract awarded to General Electric Co. to reconstruct electric light plant at $13,055.

Saginaw, Mich.—This city is considering installing a municipal electric lighting station. A new system of lighting will be installed. Communications should be addressed to Herman H. Eymer, City Engr.

Chicago, Ill.—Illinois Public Utilities Comn. has granted the Public Service Co. of Northern Illinois a certificate of convenience for erection of transmission lines from Streator to Grande Ridge, from Kankakee to Chebanse and from Henry to Spring Grove, Solon Mills and Richmond.

★*Items marked thus give the names of parties awarded contracts.*

Sullivan, Ill.—See "Water Works."

★**Wauwatosa, Wis.**—Contract for contructing power house for tuberculosis anatorium, Wauwatosa reported awarded o American Constr. Co. at $37,500.

★**Denison, Ia.**—Contracts awarded by City Council to furnish and erect municial light plant to McGraw Electric Co., Omaha, Neb., at $22.974, and for power ouse to Fee & Cobler.

★**Buhl, Minn.**—Contract for about $50,-00 for improvements on the water and ight system reported awarded by Village Council to R. B. Whitaker & Co., St. Paul.

Elk River, Minn.—F. D. Waterman, of Elk River, writes that he will construct n electric light plant here, to be operated y water power.

Auxvasse, Mo.—R. Kennedy has filed vith Public Service Comn. a request for ermission to install an electric light plant n Auxvasse.

Glenwood, Ark.—John Peden, of Heber Springs, reported to have secured franhise for electric light plant.

La Porte, Tex.—The La Porte Water, Light & Ice Co. expects to purchase within the next 9 months one 15-ton ice plant and two 75-hp crude-oil engines, and to erect 3 miles of transmission lines, two 50,000-gal. water towers and tanks, and install water mains, etc.

★**Longview, Tex.**—Contract awarded to Roach-Manigan Paving Co., Ft. Worth, for construction of power and generator house, including all machinery; also construction of water tower.

Chehalis, Wash.—City Council has passed ordinance granting an electric light and power franchise to B. F. Walling, Jr., representing Eastern capitalists. The question of granting franchise will be voted upon Sept. 8.

San Francisco, Cal.—The Directors of Northern California Power Co. (Edw. Whaley, Secy., San Francisco) at a special meeting of stockholders July 17 voted to authorize increase in capital stock of $2,000,000, of which $500,000 is to be issued and sold at once.

Culdesac, Idaho. — City Council has granted W. L. Marrs, Cœur d'Alene, a franchise to construct and operate an electric light plant. Work on construction of plant, it is understood, will begin about Sept. 1.

Swift Current, Sask.—Bonds to the amount of $196,000 have been issued by the town for local improvements, of which $60,000 will be used for a municipal electric light plant.

Fort Fraser, B. C.—Plans have been filed by the Vanderhoof Power Co., Victoria, B. C., for construction of two dams, capacity 10,000 acre-ft., at Ft. Fraser.

Guantanamo, Cuba.—Bids opened July 25 at Bureau Yards and Docks, Navy Dept., Washington, D. C., for Spec. 2087, furnishing and installing four 200-hp. water tube boilers, with accessories in Central Power Plant, Naval Station, Guantanamo: Babcock & Wilcox Co., 1010 North American Bldg., Philadelphia, Pa. (2 bids), $10,865 and $21,459; Heine Safety Boiler Co., 1120 Pennsylvania Bldg., Philadelphia, Pa., $9,610; E. Keeler Co., 228 West St., Williamsport, Pa. (2 bids), $10,327 and $21,181; Gas Engine & Power Co. & Chas. L. Seabury & Co., Consolidated, Morris Heights, N. Y., $23,270.

ELECTRIC RAILWAYS.

Items Arranged Geographically

★**Boston, Mass.**—Contract awarded Aug. 4 by Boston Transit Comn. for enlargement of Park St. station of the subway to Coleman Bros., Chelsea, at following bid: 9000 cu. yd. earth excav., $2.50; 300 lin. ft. 8 to 10-in. clay pipe laid, $1; 950 cu. yd. concrete to be removed, $6; 1200 sq. yd. granolithic walks to be removed, 40 cts.; 1500 cu. yd. concrete, $9.50; 10 cu. yd. cinder concrete, $6; 150 cu. yd. mortar under flanges of beams, $15; 2500 sq. yd. granolithic 4 to 6-in. thick, $1.50; 350 lin. ft. granolithic curbs and gutters, 75 cts.; 10 cu. yd. concrete 4 in. thick for walls, $20; 84 steel columns to be cased in concrete, $16; 20 cu. yd. brick masonry, $17; 75 tons steel rods in place, less than 6 lb., $10; 270 tons over 6 lb. per ft., $15; 190 tons steel removed and taken to yard, $7; 100 sq. yd. ½-in. cement coating, $50; 5000 sq. yd. prepared asphalt applied, $50; 100 sq. yd. tar felt applied, $25; supporting subway, etc., (lump sum), $2,000; 850 lin. ft. 8-ft. fence, 50 cts.; 150 cu. yd. cinders for base for walks, $1; total, $62,717.

Dedham & Medway St. Ry. Co. received permission from Public Service Comn. to extend railway into Medway and Franklin.

Springfield, Mass.—Springfield St. Ry. Co. received franchise from Council to extend its line on N. Fountain Ave. from present line of company on McCreight Ave. at intersection of McCreight Ave. and N. Fountain Ave. to Home Road in Springfield.

Waterbury, Conn.—Plans being considered by Connecticut Co. (J. K. Punderford, Gen. Mgr., New Haven.) for line on Roseland Ave. in Waterbury.

★**Brooklyn, N. Y.**—Contract awarded by Public Service Comn. for First Dist., New York, for construction of Station finish on Sects. 1 and 2 of Route No. 11-B, a part of the Bway.-4th Ave., Brooklyn Rapid Transit R. R., to Station Constr. Co., 277 Bway., New York, at $248,762 (bids opened July 23). For unit prices, see Engineering Record of Aug. 1.

Bids desired until Aug. 21 by Bd. Public Service Comn. for First Dist., 154 Nassau St., New York, N. Y., for furnishing and delivering, f. o. b. 39th St. and 3d Ave. station of South Brooklyn Ry., special work portions, 5, 6, 12, 14, 15 and 16, said portions being a part of the Bway.-4th Ave. Rapid Transit R.R., Brooklyn Boro., advertised in Engineering Record.

Bids desired same time and place as above for constructing Sect. No. 3, Route 33, a part of the Bway.-4th Ave. and 7th Ave.-Lexington Ave. Rapid Transit R.R., advertised in Engineering Record. This is a 2-track railroad in Boro. Brooklyn, with 2 branches, one branch connecting Whitehall-Montague St. tunnel with the 4th Ave. subway in Flatbush Ave. extension at Prince St., the other connecting Old Slip-Clark St. tunnel with existing subway at Fulton and Willoughby Sts.

★**New York, N. Y.**—Contract awarded by Public Service Comn., First Dist., 154 Nassau St., New York, for constructing Sect. 5 of Routes Nos 4 and 36, a part of Bway.-4th Ave. subway, to Degnon Contr. Co., 30 E. 42d St., $2,819,511 (bids opened July 24). For unit prices see Engineering Record, Aug. 1.

Avoca, Pa.—Wilkesbarre Ry. Co. received a franchise from Council to extend its tracks through West Avoca to Lehigh Valley Railroad tracks. Plans are being made to begin work on this extension at once.

Pottstown, Pa.—Surveys will be made at once by Borough Engineer Ralph E. Shaner to build electric railway from Stowe to Reading. It will connect at Stowe with lines of Pottstown & Phoenixville Ry.

Jesup, Ga.—Construction of electric railway between Jesup and Doctortown is contemplated. M. Arlino, Jesup, is interested.

Pelham, Ga.—Cairo, Pelham & Moultrie Ry. Co. chartered to build railway from Pelham to Moultrie, 50 miles. Capital, $75,000. Among incorporators: J. J. Hill and D. Turner, Pelham; Mrs. B. H. Polk, Ochlochnee.

Clearwater, Fla.—C. H. Evans, Clearwater, received franchise from Council to build electric railway in Clearwater.

Champaign, Ill.—Illinois Traction System will soon construct new high-tension transmission line from power house in north part of Champaign, through extreme northern part of both Champaign and Urbana, joining its present line at point about 2 miles east of Urbana; New line will be about 5 miles in length.

Pekin, Ill.—Directors of Pekin St. Ry. Co. perfected organization by election of following officers: W. E. Lautz, pres.; Richard Luick, vice-pres.; J. M. Rahn, secy. and treas.

Bonner Springs, Kan.—Kansas City, Kaw Valley & Western Ry. Co. plans to begin work at once on extension from Bonner Springs to Lawrence.

Williston, N. D.—Contracts about to be let for constructing 60-mile electric railway from Williston north along west side Little Muddy Valley. A. H. Brown, Pres.

Hot Springs, Ark.—Missouri, Arkansas & Southwestern Ry. Co. chartered to build electric or steam railway from Mena to Hot Springs, distance 80 miles. Capital $2,500,000. Directors: O. H. Scroggin, John H. Hamilton.

Corsicana, Tex.—Work will begin in the fall by Southern Traction Co. (Luther Dean, Ch. Engr., Dallas) on construction of electric railway between Corsicana and Waco Division.

Portland, Ore.—Portland & Oregon City Ry. Co. received franchise from Council for line through east side to connect with line now being built from Oregon City to Portland.

RAILROADS.

Items Arranged Geographically

Batavia, N. Y.—The Delaware, Lackawanna & Western R.R. proposes to abolish its railroad crossings at East Alexander and at Alexander crossing. G. J. Ray, Ch. Engr., Hoboken, N. J.

Brooklyn, N. Y.—The Bd. of Estimate July 30 after a public hearing, presided over by Mayor Mitchel, voted adoption by city of amended plan of marginal railroad for South Brooklyn which calls for a through railroad from Bay Ridge as far as Brooklyn navy yard.

Birmingham, Ala.—The Birmingham & Southeastern R. R. Co. (W. M. Blount, Pres., Union Springs) reported to be considering an extension from Eclectic to connect with trains entering Birmingham and Anniston.

Cumberland, Md.—See "Miscellaneous."

Durham, N. C.—Durham & Southern Railroad Co. will build extension from Dunn to Mt. Olive through Wayne and Sampson Counties early in the fall.

Cleveland, O.—The Nickel Plate R. R. Co. (G. C. Todd, Div. Supt., Cleveland) reported to be considering construction of freight terminal here to cost $100,000; also other improvements to cost $500,000.

Columbus, O.—State Public Utilities Comn. authorized a $50,000 stock issue for Chesapeake & Ohio Railroad, the proceeds to be used for buying right of way and making preliminary survey of a line from Edgington, Ky., and Portsmouth, O., to Columbus. F. I. Cabell, Ch. Engr., Richmond, Va.

Alton, Ill.—Alton & Jacksonville R.R. Co., incorporated to build a railroad from Alton through Madison, Jersey, Greene, Scott and Morgan Counties connecting Alton and Jacksonville. Incorporators: Frank L. Butler, Wade W. Meloan, Jas. S. McClellan and others.

★**Ely, Minn.**—Contract for construction of the first 20 miles of the new Grand Marais & Northwestern Railroad, to be built from Grand Marais to Ely, awarded to John Bergman, Duluth.

Great Falls, Mont.—Articles of incorporation reported filed by Great Falls Western Ry. Co., a subsidiary of the Chicago, Milwaukee & St. Paul Ry., to construct railroad from Great Falls to Missoula. Incorporators: C. A. Goodnow, Evanston, Ill.; J. D. MacVicar, Great Falls; C. L. Whiting, Lewistown, and others.

Mena, Ark.—The Missouri-Arkansas & Southwestern Ry. Co., formed with a capital of $2,500,000 to construct a railroad from Mena through Polk, Montgomery and Garland Counties to Hot Springs. A. H. Scroggin and John Thompson of Mena, J. D. Jones of Womble, H. Williams of Hot Springs among the incorporators.

PUBLIC BUILDINGS AND SCHOOLS.

Items Arranged Geographically

Gorham, Me.—Lowest bid received for erecting brick dormitory at State Normal School was from E. C. Hodgins & Son, Bangor, at $42,919.

Manchester, N. H.—Plans prepared by Wm M. Butterfield, of Mansfield, for an addition to the police station, to be 3-story and cost $22,000.

Portsmouth, N. H.—Bids desired until Aug. 11 by Clarence P. Hoyt, Archt., 8 Beacon St., Boston, Mass., for furnishing material and erecting an 8-room school at Lafayette and South Sts., Portsmouth.

★**Vergennes, Vt.**—Contract for erecting 4 brick buildings at Vermont State Industrial School awarded to Elliott & Keislich of Burlington at about $60,000. Frank L. Austin, Burlington, Archt.

Amherst, Mass.—Bids desired until Aug. 12 by Trus. Massachusetts Agricultural College for furnishing material and erecting a hospital building on the grounds of the College at Amherst. Jas. H. Ritchie, Archt., 8 Beacon St., Boston.

Boston, Mass.—See "Electric Railways."

Boston, Mass.—Bids desired until Aug. 12 by Trus. City Hospital for work in east and west pavilions, domestic laundry and nurses' home, buildings, South Dept., as follows: Alterations and addition to said buildings: changes and additions to heating system: changes and additions to plumbing system.

Lancaster, Mass.—Bids desired until Aug. 14 by Trus. Massachusetts Training Schools at the office of Rchd. D. Kimball Co., Engrs., 6 Beacon St., Boston, for installing steam heating system in certain buildings at the Industrial School for Girls, Lancaster.

Worcester, Mass.—Plans for Rice Sq. School to be prepared by John T. Simpson, Newark, N. J.

Bridgeport, Conn.—Plans being prepared by Skinner & Walker, 1188 Main St., for almshouse to be erected on the town farm; cost, $175,000.

Brooklyn, N. Y.—Bids desired until Aug. 14 by Comr. Dept. Pub. Charities, Municipal Bldg., New York, for furnishing material and installing new steam lines for carrying exhaust steam from power house of Kings County Hospital, Boro. Brooklyn.

Buffalo, N. Y.—Bids desired until Aug. 20 by Dept. Pub. Wks. for erecting 16-room fireproof school in Dist. 66, Southside Parkway; also separate bids for heating, ventilation, etc.; plumbing, drainage, etc.; electrical work, etc.

Chatham, N. Y.—Citizens voted in favor of erecting school; cost, $75,000.

Dunkirk, N. Y.—Bids desired until Aug. 14 by Secy. Bd. Educ., Dunkirk Union Free School Dist. No. 1, for erecting a school in 4th Ward.

Middletown, N. Y.—Bd. Educ. considering erecting $60,000 school.

New York, N. Y.—Bids desired until Aug. 11 by Court House Bd., room 1101, 115 Bway., New York, for making borings on the site of the new court house, Lafayette, Leonard, Baxter and Duane Sts. and Park Row, Boro. Manhattan.

Contract for alterations and improvements to the U. S. Post Office awarded to Northeastern Constr. Co., 325 5th Ave., at $62,231.

Bids desired until Aug. 17 by Fire Comr. for moving and alterations to quarters of Hook & Ladder Co. 8, N. Moore and Varick Sts.

New York State.—Bids reported desired until Aug. 10 by State Armory Comn., Albany, for the following:

Improvements and betterments in armory at Niagara Falls.

Steam heating and plumbing repairs in armory at Dunkirk.

Masonry, carpentry, etc., in armory at Geneva.

Port Jervis, N. Y.—Bids desired until Sept. 14 by Superv. Archt., Washington, D. C., for construction complete (including mechanical equipment, lighting fixtures and approaches) of U. S. Post Office.

Rochester, N. Y.—Bids desired until Aug. 17 by Secretary State Hospital Comn., Albany, for sewage, pumping station and additional laundry equipment at the Rochester State Hospital.

★**Schenectady, N. Y.**—Contract for heating and ventilating in Nott Terrace School awarded to Carl Frank Co. at $13,950.

Vernon, N. Y.—Plans prepared by Walter Frank, Utica, for brick school, 80 x 48 ft.; cost, $30,000.

Elizabeth, N. J.—Bids desired until Aug. 13 by Bd. Educ. for erecting a school on Murray and Grove Sts.; separate bids on heating and ventilating. O. Godfrey Poggi, Archt., 2 Julian Pl.

Pennsgrove, N. J.—High School costing $30,000 to be erected here.

★**Roebling, N. J.**—Contract for erecting a 2-story brick and terra cotta school in Roebling has been awarded by the Bd. Educ., Township of Florence, to Berry-Goodwin Co., Drexel Bldg., Philadelphia, at $61,000. Klemann & Fowler, Archts., Trenton.

West Long Branch, N. J.—Bids desired until Aug. 24 by Bd. Educ. for alterations to school at Wall St., including heating and ventilating.

Ebensburg, Pa.—Plans of Jas. Riley Gordon, New York, have been selected for the enlargement of the court house. Bids are to be asked on the erection of 3 wings, also on 2-wing addition.

Oil City, Pa.—Contract for erecting armory awarded by the State Armory Comrs. to L. O. Bouquin at about $30,000.

Philadelphia, Pa.—Bids reported desired until Aug. 14 by Bd. Educ. for erecting South Philadelphia High School for Girls, on Broad and Jackson Sts., of granite; cost, $900,000.

Pittston, Pa.—Two lowest bids received on the general constructing 42-room high school were Miles J. Frey, Pittston, $168,-875, and E. J. Donahoe, Ashley, $176,100. Lowest bid for heating and ventilating, Jas. A. Redington, Pittston, $28,000; plumbing, gas fitting, tin work and metal ceiling, J. A. Redington, $14,870.

★Contract for erecting above high school awarded to Miles Frey, Pittston.

Portage, Pa.—Plans for school to contain 9 rooms and cost $35,000 are to be prepared by J. F. Adams, Jamestown.

Smethport, Pa.—Bids desired until Aug. 26 by Co. Comrs. for general contract plumbing, sewering and gas fitting in a 2-story stone and brick fireproof addition to the Court House; also for alterations in present building. W. Ward Williams, Archt., Magee Bldg., Pittsburgh.

Warren, Pa.—Bids desired until Aug. 10 by School Bd., for erecting an addition to High School. Edw. A. Phillips, Archt., Trust Co. Bldg.

Wilkesbarre, Pa.—School Directors of Wilkesbarre Township approved plans of Owen McGlynn, Wilkesbarre, for the high school; cost $20,000.

Williamsport, Pa.—Bids desired until Aug. 21 by Grammar School Bldg. Com., for erecting a school, also separate bids for heating, and plumbing. Woodnutt & Schmohl, 150 W. 4th St., Archts.

★**Woodville, Pa.** — Contract awarded Aug. 4 by County Controller, Pittsburgh, for installing plumbing, gas fitting and sewering in Tuberculosis Hospital to Moss & Blakely Plumbing Co., 223 Beltzhoover Ave., Pittsburgh, at $12,850. McMaster & Crooks, Archts., Curry Bldg., Pittsburgh.

Baltimore, Md.—Plans being prepared by Archer & Allen, Central Savings Bank Bldg., for addition to laboratory of Johns Hopkins Medical School, Bway. and Monument St.; cost, $50,000.

Cumberland, Md.—Plans for the school to be erected at Columbia St. and Pine Ave. to be prepared by Holmboe & Lafferty, Clarksburg, W. Va. Address County School Bd.

Ocean City, Md.—Bids reported desired until Aug. 10 by Theo. Wells, Pietsch, Archt., 1210 American Bldg., Baltimore, for erecting a 2-story school; cost, $30,000.

Dover, Del.—A Carnegie Library costing $20,000 is to be erected here.

★*Items marked thus give the names of parties awarded contracts.*

Wilmington, Del.—Bids desired until Aug. 11 by New Castle County Bldg. Comn. and the Wilmington Bldg. Comn for concrete work entering into the construction of the new county and new municipal building, Wilmington, advertised in Engineering Record.

★**Washington, D. C.**—Contract for steam heating system in Webster School awarded to Biggs Htg. Co. at $6,400.

Alexandria, Va.—Plans for the high school completed by City Engr. E. S. Dunn; cost, $50,000.

Charles Town, W. Va.—Trus. of the General Hospital decided to erect a 3-story brick addition to the building.

★**Ridgeland, S. C.**—Contract for erecting court house and jail awarded to T. W. Hawlow, Jacksonville, Fla., at $33,500.

Ft. Myers, Fla.—Following are bids received for erecting the court house: F. P. Heifner, Atlanta, Ga., $64,900; Cahow & Parker, Tampa, $83,470; Bates & Hudnell, Tampa, $84,000; J. F. Jenkins, Ocala, $87,000.

Lemon City, Fla.—Bids desired until Aug. 13 by County Bd. of Instruction for $25,000 building bonds.

Mobile, Ala.—Bids desired Aug. 18 (readvertisement) by Richd. Hanes, Jr., Secry. Bd. School Com. for installing steam heating system in Barton Academy. All bids received July 27 rejected.

★**Clarksdale, Miss.**—Contract for erecting U. S. Post Office awarded to Callahan-Mandl Co., Roanoke Bldg., Chicago, Ill., at $93,039.

Alexandria, La.—A school costing $125,000 is to be erected here. Address D. B. Showalter, County Supt. Schools.

★**Jennings, La.**—Contract for erecting the U. S. Post Office awarded to Newport Constr. Co., Newport News, Va., at about $50,000.

Cookeville, Tenn.—Following are three lowest bids received by Superv. Archt., Washington, July 30, for erecting the U. S. Post Office and Court House; prices given are limestone and standstone respectively: Ragland Bagster Morford Co., Nashville, Tenn., $73,970 and $74,470; Jas. De Vault, Canton O., $76,500 and $77,900; W. H. Fissell Co., New York, N. Y., $72,200 and $73,000.

Memphis, Tenn.—Plans for 2 schools, each to cost $20,000, one at Kerville and the other at Highland Heights, are to be prepared by Mahan & Broadwell, for the County School Bd. A similar school is to be erected in Millington by the Bd.

Louisville, Ky.—Plans completed by Joseph & Joseph, Louisville, for the grade school to be erected on Preston St. to be 2-story brick and stone and contain 10 classrooms.

Alliance, O.—Bids desired until Aug. 17 (extension of date from Aug. 8) by Director Pub. Service for erecting a new city hall building and remodeling part of the Central Fire Station. L. W. Thomas, Archt., Pythian Bldg., Cleveland.

Belleville, O.—At recent election citizens voted in favor of erecting a township high school.

Canal Dover, O.—Bids desired until Sept. 8 by Bd. Educ. for furnishing material and erecting a fireproof high school, advertised in Engineering Record. Howard & Merriam, Archts., 8 E. Broad St., Columbus.

Cincinnati, O.—Bids reported desired until Aug. 25 by General Hospital Comrs. for equipping the new hospital. Saml. Hannaford & Sons, Archts., Hulbert Bldg.

Columbus, O.—Bids desired until Aug. 19 by Co. Comrs. for plumbing improvements in Franklin County Children's Home. W. H. Tremaine, Archt., 602 Chamber of Commerce Bldg.

Columbus, O.—Bids desired until Aug. 25 by Secretary Franklin, Park Bd. Comrs., for erecting a shelter and recreation building in said park.

Columbus, O.—Bids desired until Aug. 24 (extension of date from Aug. 17) by Bd. Trus. Ohio State Univ., Columbus, for erecting a greenhouse at said university. Jos. N. Bradford, Univ. Archt.

★**Dayton, O.**—Contract for erecting the public comfort station, awarded to Engle & Gohn, 207 Lexington Ave.

Glenwillow O.—Bids desired until Aug. 29 by Bd. Educ., for erecting school on Pettibone Rd.

★**Greenspring, O.**—Contract awarded by Bd. Educ. for heating plant in the school to Wesley Smart, Fremont, at $2,700, and for installing ventilating and heating system to American Warming & Ventilating Co., Toledo, at $4,100.

Hudson, O.—Bids desired until Sept. 14 for erecting the high and grade school. J. W. C. Corbusier, Archt., Lennox Bldg., Cleveland.

Jacksonboro, O.—Bids desired until Aug. 17 by Bd. Educ., Wayne Township, Jacksonboro, for furnishing material and erecting a school in Dist. No. 1, also for heating and ventilating system. Wm. D. Lingler, Archt., 152 High St., Hamilton.

Mt. Healthy, O.—Bids desired until Aug. 29 by Bd. Educ., Finneytown Special School Dist. No. 10, Hamilton County, Springfield Township, at the office of H. B. Berning, Clerk, R. F. D. No. 1, Mt. Healthy, for furnishing material and erecting a school in said district. Saml. Hannaford & Sons, Archts., Cincinnati.

Put-in-Bay, O.—Bids reported desired until Aug. 20 by State Agricultural Comn., Columbus, for erecting a fish hatchery at Put-in-Bay. Dawson & Holbrook, Archts., 44 Broad St., Columbus.

Raymond, O.—Plans and specifications for 2-story brick school are being prepared by Frank L. Packard, Columbus; cost, $27,000.

Rittman, O.—Bids reported desired until Aug. 14 by Clerk Bd. Educ. for erecting a 2-story high and grade school; cost, $40,000. National Eng. Co., 504 Marshall Bldg., Cleveland, Archt.

Salem, O.—Bids desired until Aug. 20 by Bd. Educ. for erecting the high school, advertised in Engineering Record. C. F. Owsley, Archt., Mahoning Bank Bldg., Youngstown.

★**St. Clairsville, O.**—Contract awarded July 24 for erecting high school to Febzer-Winger Co., Pittsburgh, Pa.; appropriation, $51,000. Mrs. Annie W. Hollingsworth, Clk. Bd. of Educ.

Warren, O.—Bids reported desired by Bd. Educ. for erecting the addition to the high school; cost $75,000.

★**Indianapolis, Ind.**—Contract for erecting school on 38th St. and Park Ave. reported awarded to Wm. Jungclaus Co., Indianapolis, at about $68,000.

Indianapolis, Ind.—Bids desired until Aug. 25 by Business Director, Bd. School Comrs., for general construction, heating and plumbing of School 67, Walnut St. and Rochester Ave. A. Scherrer, Archt.

Eben, Mich.—Bids reported desired until Aug. 10 by Secy. School Bd., Rock River Township, Chatham, for erecting a 2-story school at Eben. J. M. Byrnes, Archt., Marquette.

Menominee, Mich.—Bids reported desired for erecting the manual training and domestic science school, according to plans by Derrick Hubert of Menominee; cost $150,000.

Chicago, Ill.—All bids received Aug. 1 by Comr. Pub. Wks. for erecting bathing pavilion at Clarendon and Montrose Aves. rejected and new bids desired at once. Chas. W. Kallal, City Archt., Rm. 1012, City Hall.

Dunning, Ill.—Bids desired until Aug. 31 by Bd. Administration, Capitol Bldg., Springfield, for erecting a cottage for untidy female patients at the Chicago State Hospital, Dunning; separate bids for plumbing. Jas. B. Dibelka, State Archt., 29 S. La Salle St., Chicago.

Upper Alton, Ill.—Illinois State Board of Administration, Springfield, desires bids until August 31 for erection of 4 state buildings on site for Alton State Hospital for Insane at Upper Alton, as follows: Administration building, receiving hospital, cottage for untidy female patients, nurses' home. Separate bids will be received for the erection of the buildings and for the plumbing and heating. Appropriation available, $490,000. Jas. B. Dibelka, State Archt., 29 South La Salle St., Chicago.

★**Urbana, Ill.**—Contract for erecting addition to chemistry building at University of Illinois awarded to Freeman & Brooks, Champaign.

Marinette, Wis.—G. H. Landgraf, Supt. Schools, writes that bids for erecting high school will be opened about Sept. 1; it will be 3-story brick, 210 x 110 ft.; cost about $120,000, with $10,000 additional for equipment. J. D. Chubb, 109 N. Dearborn St., Chicago, Ill., Archt.

Milwaukee, Wis.—Bids reported desired until Aug. 17 by Dept. Pub. Wks. for erecting a natatorium on Huron and Jackson Sts.

★**Knoxville, Ia.**—Contract for erecting custodial building at State Hospital for Inebriates awarded to Weitz & Son, Des Moines, at $25,000.

Brainerd, Minn.—Bids desired until Aug. 17 by City Clerk for erecting a 3-story city hall and jail; also separately for heating and plumbing; cost, $80,000. Alden & Harris, Archts., 809 Commerce Bldg., St. Paul.

New Duluth, Minn.—Plans completed by Kelly & Williams, Duluth, for 10-room fireproof brick school to be erected between New Duluth and Gary, at a cost of $70,000.

Mahtomedi, Minn.—Bids desired until Aug. 14 by Bd. Educ. School Dist. No. 69 for an addition to public school; also for plumbing and heating same.

Owatonna, Minn.—Following are bids received July 25 for erecting armory: Jos. H. Brown Co., Minneapolis, $23,985; Hammel Bros. & Anderson, Owatonna, $25,311, and Johnson Constr. Co., Minneapolis, $25,532. Chas. H. Stratton, Archt., Owatonna.

Garden City, Kan.—Dieter & Wenzel Constr. Co., Wichita, submitted the lowest bid July 29 for erecting the U. S. Post Office, at $51,358 and $52,300 for limestone and sandstone respectively.

Dundee, Neb.—Bids desired until Aug. 11 by School Bd. for erecting a school on 51st St. John Latenser, Archt., Bee Bldg., Omaha.

Grand Forks, N. D.—In the School Bond Tax levy for 1914 the Bd. of Educ. has appropriated $50,000 for the proposed new high school.

★**Flandreau, S. D.**—Contract for erecting the 2-story brick high school awarded to O. H. Olson, Stillwater, Minn. Warren G. Cawles, Secy. Bd. Educ.

★**Livingston, Mont.**—Contract for erecting Central School awarded to Gagnon & Co., Billings, at $47,386.

★**Evanston, Wyo.**—Contract for erecting high school awarded to E. Kress, Denver, Colo., at $23,980, not including heating and plumbing. Next three bidders: Denver Master Builder Assoc., Denver, $27,349; Aug. Rudiner, Salt Lake City, Utah, $28,950, and Archie Allison, Cheyenne, $29,498. Geo. Cameron, Asst. Secy. Bd. Educ.

Cameron, Mo.—Bids reported desired until Aug. 12 by Bd. Educ. for erecting a grade and high school.

★**Kansas City, Mo.**—Contract for erecting addition to Emerson School (bids opened July 27) awarded to A. E. Madorie, 213 Reliance Bldg., at $44,554. J. B. Jackson, Jr., Secy. School Bd.

Bids desired until Aug. 20 by Bd. Directors School Dist. Kansas City, for installing ventilating and heating apparatus, plumbing and drainage, automatic temperature regulation, etc., in Emerson School and addition. J. H. Brady, Ch. Engr., 517 Finance Bldg.

Rolla, Mo.—Citizens voted in favor of issuing $27,500 bonds for site and erection of high school. Nothing further done in the matter; plans not yet selected. E. H. Roach, Secy. Bd. Educ.

Clarksville, Ark.—Plans for new school to be prepared by J. T. W. Jennings, Ft. Smith; cost, $30,000. Address School Bd.

Heber Springs, Ark.—A franchise has been granted to H. M. Gibbs, a promotor, of Memphis, Tenn., to erect a bath house and sanitarium near Spring Park; probable cost, $75,000.

★**Marked Tree, Ark.**—Contract for erecting reinforced-concrete and brick and stone school awarded to Smith & Babbitt, Memphis, Tenn.; cost $25,000.

Dallas, Tex.—Bids desired for erecting the recreation building in Summit Play Park; cost $20,000.

★**Dallas, Tex.**—Contract for erecting the 8-room addition to Sam Houston School at Oak Lawn awarded to Ennison & McCord, at $31,979.

★**Dallas, Tex.**—Contract for constructing $30,000 worth sidewalks in Methodist University subdivision awarded to S. P. Berwick.

★**Ft. Worth, Tex.**—Contract awarded to Newcomb & Sneed at $20,818 for erecting the county orphans' home and plumbing to W. E. Thatcher at $2,327.

Galveston, Tex.—Plans completed by C. D. Hill, Dallas, for the new 4-story city hall.

★**Lockhart, Tex.**—Contract for erecting the 2-story fireproof brick building for the Lockhart Hospital on Bois d'Arc St. awarded to Thos. Hedges.

Temple, Tex.—Citizens voted in favor of $40,000 school improvement bonds.

★**Greeley, Col.**—Contract for erecting the U. S. Post Office awarded to J. H. Wiese, Omaha, Neb., at $99,316.

Bellingham, Wash.—Plans for the high school, costing $50,000, are to be prepared by T. F. Doan, Bellingham.

Spokane, Wash.—Plans for the 2 brick fireproof buildings to be erected at the Gonzaga Catholic Univ. are to be prepared by Julius A. Zittel, Spokane; cost, about $300,000. Bids for construction will be asked in about 30 days.

Eugene, Ore.—W. C. Knighton, State Archt., Salem, has completed plans for the proposed administration building for the Univ. of Oregon; cost $100,000.

Portland, Ore.—Plans completed by F. A. Naramore, School Archt., for Kennedy School; cost, $105,000.

Plans completed by Toirtellotte & Hummel, Rothschild Bldg., for reinforced concrete hospital to be erected in the East Side; cost, $50,000.

Roseburg, Ore.—Erection of a high school costing $100,000 under consideration.

Bakersfield, Cal.—Bids desired until Sept. 8 by Bd. Superv., Bakersfield, for furnishing material and installing and remodeling a complete central heating plant in Kern County High School group of buildings. Orville L. Clark, Archt., Bakersville.

Berkeley, Cal.—Lowest bid received by State Bd. Control, Sacramento, for erecting the gymnasium at the State Home for the Deaf, submitted by Frank Gallagher, at $39,900.

Los Angeles, Cal.—Plans being prepared by C. R. McDougall, State Archt., Sacramento, for a State Hospital for the Insane to be erected here; cost $160,000.

Newark, Cal.—Citizens voted in favor of $25,000 school bond issue.

Petaluma, Cal.—Bonds for the high school sold. No plans selected for the building and nothing further has been done. A. B. Way, Secy. Bd. Educ.

Redlands Beach, Cal.—Citizens voted $75,000 bonds for erecting a school.

San Fernando, Cal.—Plans for Morningside Grammar School prepared by Austin & Pennell, Los Angeles, provide for a reinforced concrete 8-classroom building costing about $40,000.

St. John, N. B.—Bids about to be asked for erecting 8-room school on Douglas Ave., bids to be submitted on both cement and brick construction; cost approximately $65,000. Address Bd. School Trus.

Following are the lowest of the bids received by County Council for erecting tuberculosis hospital: Brick and mason work, A. R. C. Clark, $29,458; carpentry and painting, R. J. Green, $21,170; plumbing and heating, F. S. Walker, $14,935; elevator, Otis Fenson Co., $3,225.

Notre Dame de Grace, Que.—The Jesuit Fathers, Montreal, reported to be taking steps to establish a college here, the cost to be about $750,000.

Campbellford, Ont.—Bids desired until Aug. 24 by Secretary Dept. Pub. Wks., Ottawa, Ont, for erecting a public building at Campbellford.

Ottawa, Ont.—Bids desired until Aug. 24 by Secy. Dept. Pub. Wks., Ottawa, for erecting a dairy building at the Experimental Farm, Ottawa.

Port Stanley, Ont.—Bids desired until Aug. 31 by Secretary Dept. Pub. Wks., Ottawa, Ont., for constructing harbor improvements, being a reinforced-concrete warehouse adjacent to the west pier at Port Stanley, Elgin County.

Toronto, Ont.—Bids desired until Aug. 11 by Secretary-Treasurer Bd. Educ. for erecting building on Leslie St.; manual training and domestic science building, Forest School, High Park; plumbing and heat regulations in Withrow Ave. School; plumbing, etc., in sundry schools.

Also until Aug. 28 same place as above for erecting building at High School of Commerce.

San Juan, P. R.—Bids desired until Aug. 31 at office of Light House Inspector for furnishing and erecting 3 iron substructures on concrete piles, San Juan Harbor.

PRIVATE BUILDINGS.

Items Arranged Geographically

★**Portland, Me.**—Contract for erecting concrete, brick, granite and steel building in Harlow St. for Chas. W. Morse, awarded to Cyr Bros., Waterville, at about $75,000.

★**Boston, Mass.**—Contract for erecting 10-story Jaynes Building at Lovering Pl. and Asylum St. awarded to National Fireproofing Co., Pittsburgh, Pa.

Gerald G. E. Street, 15 State St., is reported interested in the company which intends erecting a 10-story fireproof building at Washington and Avery Sts.

★**Springfield, Mass.**—Contract for alterations to Wentworth Hotel, costing about $25,000, has been awarded to Danl. Rose & Co., Boston. Thos. M. James, Boston, Archt.

Worcester, Mass.—Bids reported desired for erecting the Y. M. C. A. building according to plans by Louis E. Jallade, New York, N. Y.

★**Providence, R. I.**—Contract for erecting 5-story reinforced concrete storage warehouse for the Belcher Loomis Hardware Co. awarded to Norcross Bros. Co., East Worcester St., Worcester, Mass., at $60,000. Eugene B. Whipple, Archt., Providence.

Hartford, Conn.—Bids reported desired for remodeling of the Union Station. Address Edw. Gagel, Ch. Engr., New York, New Haven & Hartford R. R., New Haven.

Middletown, Conn.—Plans completed for brick and granite bank building to be erected on Main St. for the Middletown Natl. Bank. W. P. Crabtree, Archt., New Britain.

New Haven, Conn.—Plans prepared by C. Jerome Bailey, 94 Church St., for 4-story brick and stone building to be erected on Grand Ave. for S. Cohen, of the New Haven Furniture Co., 788 Grand Ave.

New London, Conn.—Competitive plans have been submitted for the Y. M. C. A. Building; cost, $100,000. Geo. S. Palmer, Chmn. Assoc. Bldg. Com.

Brooklyn, N. Y.—Contract awarded to Turner Constr. Co., 11 Broadway, New York, for erecting a 7-story warehouse and loft building at Berry and S. 5th Sts. of reinforced concrete, 143 x 75 ft.

★*Items marked thus give the names of parties awarded contracts.*

Buffalo, N. Y.—Plans being prepared by Jos. J. Geigand, 346 Herman St., for a 4-story clubhouse and store building to be erected for the Independent Order of Red Men at High and Orange Sts.; cost $35,000.

Plans completed by Jos. J. Geigand, 346 Herman St., for amphitheatre building to be erected at High and Maple Sts. at a cost of $30,000. Jos. Welte, 214 Loust St., owner.

★**Canandaigua, N. Y.**—Contract for erecting the Canadaigua Natl. Bank awarded to A. Friederich Son, Rochester.

New York, N. Y.—Plans filed for the 13-story brick hotel to be erected on W. 50th St. near 8th Ave. at a cost of $185,000. Jackson, Rosencrans & Waterbury, Archts., 1328 Bway.

Plans prepared by C. P. H. Gilbert, 1123 Bway, for a 12-story apartment house, Indian limestone, to be erected at 1066 5th Ave., at a cost of $400,000.

★Contract for erecting 6-story Indian limestone and marble residence for Mrs. Elvira Brokaw Fischer, 7 E. 79th St., has been awarded to M. Reid & Co., 116 W. 39th St.; cost, $250,000. H. VanBeuren Magonigle, Archt., 101 Park Ave.

★**Poughkeepsie, N. Y.**—Contract for erecting an addition to the Masonic Temple on Cannon St. awarded to Chas. I. Round at $22,000.

★**Rochester, N. Y.**—Contract awarded to the Gorsline-Swan Constr. Co., Rochester, for erecting a 2-story brick and steel theater and store building at East Ave. and Chestnut St. for the East Ave. Amusement Co.; cost, $100,000. Leon Lempert & Son, Archts., Cutler Bldg.

★Contract for erecting the Y. M. C. A. Building on Gibbs St. awarded to Geo. Rossell, Rochester, at $385,000.

Troy, N. Y.—Plans of Louis N. Milliman, Troy, selected by the Troy Gas & Electric Co., Troy Savings Bank Bldg., for 4-story steel and brick office building and display rooms, to be erected at 19 2d St.

Burlington, N. J.—Plans being prepared by Oakley & Son, 284 N. Broad St., Elizabeth, for an addition to the Masonic Home; cost $75,000.

East Liberty (P. O. Pittsburgh), Pa.—Liberty Baking Co. is having plans prepared for 6-story fireproof addition to building at Houston St. and Pennsylvania R. R.; cost, $30,000.

Erie, Pa.—Plans for St. Andrew's Church, 7th and Raspberry Sts., are to be prepared by W. P. Ginther, Akron, O.; cost, $80,000. Rev. W. F. Dwyer, Pastor. Building is to be 2-story, stone and steel and fireproof.

Farrell, Pa.—Bids reported desired until Aug. 10 by I. O. O. F., No. 55, W. H. Kreaps, Secy., for erecting a 2-story club house. Howard C. Frank, House Bldg., Pittsburgh.

Pittsburgh, Pa.—Bids reported desired until Aug. 31 by Bartberger & Bartberger, Archts., Westinghouse Bldg., for erecting 3-story addition to the Klemans Inn; cost, $35,000.

★**Sayre, Pa.**—Contract for erecting Elks home reported awarded to Lehigh Constr. Co.; cost $20,000.

Baltimore, Md.—Plans being prepared by Louis Levi, Ameircan Bldg., for brick and concrete building to be erected at 511 to 517 W. Pratt St. for the United Woolen Mills Co., Cost, $200,000.

Plans completed by Kublitz & Stevenson, for the 12-story brick, concrete, iron and steel store and office building to be erected at 51 S. Liberty St. for Louis Applefeld.

★**Baltimore, Md.**—Contract awarded to Thos. B. Stanfield Co., for erecting a 4-story brick and concrete warehouse for Stewart Kratz Co., Fawn and President Sts. Haskell & Barnes, Archts., Wilson Bldg.

★Contract for the theater to be erected for the Garden Theater Co. on Park Ave. and Clay St. awarded to J. Henry Miller, Baltimore; approximate cost $200,000.

★**Charlotte, N. C.**—Contract for erecting a 3-story reinforced-concrete warehouse on E. 6th St. awarded to J. A. Jones, Southern Eng'g Co., Realty Bldg., Archts.

★Contract for erecting a 4-story reinforced-concrete fireproof office and warehouse building at First and Church Sts. awarded to Travers Wood Co., Richmond, Va., by the Mercantile Development Co., at $175,000.

Atlanta, Ga.—Plans completed for the 16 to 20-story building to be erected on Alabama and Whitehall Sts. by Dr. E. L. Connally, and to be known as the Connally Building.

Montgomery, Ala.—Plans completed by Okel & Cooper, Vandiver Bldg., for the Sunday school building to be erected at First Presbyterian Church at a cost of $20,000.

Shreveport, La.—Thos. C. Barrett, Shreveport, is having plans prepared for 4-story brick and reinforced concrete hotel to be erected at Louisiana and Crockett Sts. at a cost of $50,000.

Memphis, Tenn.—Members of Congregation Children of Israel propose erecting an edifice costing $40,000.

★**Memphis, Tenn.**—Contract for erecting residence for E. S. Shelton awarded to R. S. Maley, Covington, Tenn., at about $20,000.

Akron, O.—Plans for the 12 and 6-story brick fireproof office and terminal building to be erected for the Northern Ohio Traction Co. at Federal and Main Sts. being prepared by Franz C. Warner, Cleveland; cost, $250,000.

★**Cincinnati, O.**—Contract for remodeling and additions to Home of Little Sisters of the Poor, on Florence Ave. awarded to Lawrence J. Casey, Builders' & Traders' Exchange; cost $50,000.

Cleveland, O.—See "Railroads."

★**Cleveland, O.**—Contract for the carhouse to be erected at Superior Ave. and 103d St. has been awarded to Wm. I. Thompson Co.; cost $150,000.

Cleveland, O.—Ralph M. Hulett Co., Archts., 474 Lenox Bldg., are reported to be asking bids for erecting a 3-story brick club house at W. 25th St. and Clark Ave. for the German Club to cost $40,000. A. J. Hieber, Chmn.

★**Columbus, O.**—Contract for erecting the Elks' Temple on E. Broad and 5th Sts. awarded to Robt. H. Evans & Co., of Columbus, at $105,307.

Hamilton, O.—Plans approved for the Elks Temple to cost $66,700.

Indianapolis, Ind.—Bids reported desired until Aug. 10 by Indianapolis Conservatory of Music, Edgar M. Cawley, Dir., 430 N. Meridian St., for erecting a 3-story dormitory.

Indianapolis, Ind.—Aerie 211, Fraternal Order of Eagles, reported to be taking steps to erect a lodge building at Illinois and Vermont Sts.; cost, $50,000.

★**Noblesville, Ind.**—Contract for erecting the Masonic Temple awarded to Leslie Colvin, Anderson, at about $35,000.

★**Grand Rapids, Mich.**—Contract for erecting the temple for Council No. 389, Knights of Columbus, awarded to Horner & Kelly, Grand Rapids; cost, about $60,000.

Streator, Ill.—Bids desired until Aug. 17 for erecting the Y. M. C. A. Building; probable cost $40,000. W. G. Foster, Archt., Streator.

Ames, Ia.—Bids reported desired until Aug. 17 by Sheldon & Munn, Ames, for erecting a 4-story, 100x100-ft. hotel and store building according to plans by Proudfoot, Bird & Rawson, Des Moines.

★**Cedar Rapids, Ia.**—Contract for erecting the grocery warehouse for Blaul Bros. awarded to Loomis Bros. at $55,000. W. J. Brown, American Bldg., Archt.

★**Grinnell, Ia.**—Contract for erecting a 3-story building for the Elks at 4th Ave. and Main St. awarded to J. C. Mardis, Des Moines. Cost, $25,000.

Ruthven, Ia.—Bids reported desired until Aug. 17 by Bldg. Com. Methodist Church for erecting a brick edifice. Kirby T. Snyder, Archt., 751 Plymouth Bldg., Minneapolis, Minn.

Waterloo, Ia.—Plans for 4-story brick and stone fireproof building to be erected on Commercial and 4th Sts. being prepared by Marshall & Fox, Chicago, Ill.; cost, $250,000. Mrs. C. O. Lamson, owner.

Hazen, Ark.—Bids desired until Aug. 15 at office of Frank M. Blaisdell, Archt., Bankers Trust Bldg., Little Rock, for erecting brick and stone edifice for St. Cyril's Methodist Church near Hazen.

Hot Springs, Ark.—Lowest bid received for erecting the Central Methodist Church submitted by J. D. Brook, Hot Springs, at $68,100. John Gaisford, Memphis, Tenn., Archt.

★**Tacoma, Wash.**—Contract for erecting freight station for Oregon-Washington Ry. & Navigation Co. awarded to C. F. Larson, Contr. Co., Tacoma; cost, $50,000.

Los Angeles, Cal.—Plans for 5-story hotel to be erected at Gladys Ave. and 4th St. are to be prepared by Arthur Lindley, Hollingsworth Bldg.; cost, $100,000.

Plans have been prepared by Train & Williams, Los Angeles, for the temple which the Knights of Pythias propose erecting at Flower and Pico Sts. of reinforced concrete.

★**San Francisco, Cal.**—Contract for erecting 6-story brick and steel store and apartment house on Jones and Ellis Sts. for Traders Realty Co., awarded to G. P. W. Jensen, 320 Market St., at about $120,000. J. R. Miller, Archt., Lick Bldg.

Plans completed by G. A. Applegarth, Call Bldg., for 5-story apartment house to be erected on Stockton and California Sts. for D. Clinton. Cost, $70,000.

Plans completed by Wollett & Wollett, Newhall Bldg., for a theater to be erected at Mason and Eddy Sts. for the Downtown Realty Co., to be 6-story reinforced-concrete construction and cost $80,000.

Edmonton, Alta.—Plans completed by E. W. Moorehouse for a 4-story office building to be erected by Hugh McFee at a cost of $100,000.

★**Vancouver, B. C.**—Contract for erecting carhouse at 14th Ave. and Main St. for British Columbia Electric Co. reported awarded to Westinghouse, Church & Kerr Co.; cost, about $300,000.

NEW INDUSTRIAL PLANTS.

Items Arranged Geographically

See also "Private Buildings."

★**Derby Line, Vt.**—Contract for erecting the 2 factory buildings for Butterfield Co. awarded to Loomis-Dakin, Ltd., Sherbrooke, Que.; cost about $60,000.

Haverhill, Mass.—Burgess-Laing, Boston, reported to be contemplating erection of an 8-story cement factory on Essex St., to cost $250,000.

Buffalo, N. Y.—The Wickwire Steel Co. writes that it is not planning to construct a plant for manufacturing wire and wire mesh near banks of Niagara River as recently reported.

★Contract awarded to Turner Constr. Co., Prudential Bldg., for erecting a grain elevator at Prenatt St. and the Nickle Plate R. R. for the Ralston Purina Co. of St. Louis, Mo.; cost, $100,000. Building to be reinforced concrete, 8-story, 97x60 ft. 5-story, 64x37 ft.; 2-story, 103x77 ft.

Chamber of Commerce and Lunham & Moore, Chamber of Commerce Bldg., have plans in preparation for a grain elevator to be erected on the outer harbor at the foot of Michigan St.; cost $45,000.

Ilion, N. Y.—A 4-story addition is to be erected to the plant of the Remington Arms Co.; cost, $60,000.

Kingston, N. Y.—Bids reported desired by Wemlinger Steel Piling Co., 11 Broadway, New York, N. Y., for 1-story manufacturing plant, 50 x 120 ft., to be erected here.

★**Long Island City, L. I., N. Y.**—Contract for erecting a brick, terra cotta and reinforced concrete 8-story addition to plant of Ford Motor Co. has been awarded to Fountain & Choate, 110 E. 23d St.; cost, $750,000. John Graham, 2030 Woodward Ave., Highland Park, Detroit, Archt.; T. L. Gordon Co., 53 W. Jackson Boule., Chicago, Ill., Structural Steel Engr.

★**Niagara Falls, N. Y.**—Contract awarded to Turner Constr. Co., Prudential Bldg., Buffalo, for erecting 3-story addition to plant of International Acheson Graphite Co. at Buffalo Ave. and Portage St.; cost, $35,000. Reinforced concrete contsruction.

Plans prepared by Colson & Hudson, 35 Dun Bldg., Buffalo, for addition to foundry for Titanium Alloy Mfg. Co., Sugar St. and Lafayette Ave.

Rochester, N. Y.—Plans completed by Foote, Headley & Carpenter, Cutler Bldg., for a factory to be erected on West End Ave. for the Ritter Dental Mfg. Co., 610 West Ave.; cost, $26,000.

Troy, N. Y.—Enlargements and improvements to be made to foundry plant of Reynolds-Chalon Co. Owned by Jas. Hislop.

★**Bayonne, N. J.**—Contract awarded to Turner Constr. Co., 11 Broadway, New York, for erecting a wash building, storehouse and office building, paint building and a mechanical building for the Vacuum Oil Co., all of reinforced concrete.

Hoboken, N. J.—Hoboken Land & Improvement Co. intends erecting at Washington and 15th Sts. three 12-story factories costing $1,000,000.

Trenton, N. J.—Plans prepared by Geo. L. Savage, Witherspoon Bldg., Philadelphia, Pa., for the 1-story stone Cadwalader Heights Methodist Church; cost $30,000.

Wilkesbarre, Pa.—Plans prepared by Sturdevant & Poggi selected for the 3-story Masonic Temple to be erected on N. Franklin St.; cost $75,000.

Jonesville, La.—The Louisiana & Arkansas Ry. Co. (F. W. Green, Gen. Mgr., Stamps, Ark.), has secured a site here on which to erect a repair shop.

St. Paul, Minn.—Bids desired until Aug. 14 by State Bd. Control, Capitol Bldg., St. Paul, for erecting a cold storage plant at the State Agricultural School, St. Anthony Park, including plumbing, etc.

Butte, Mont.—Plans reported completed for the station which the Chicago, Milwaukee & St. Paul R. R. contemplates erecting in this city on S. Montana St. C. F. Loweth, Chicago, Ill., Ch. Engr.

La Porte, Tex.—See "Power Plans."

Sand Springs, Okla.—The Inez Mfg. Co. intends erecting a factory here for the manufacture of cotton textile; buildings alone to cost $250,000.

Montreal, Que.—Plans being considered by Harbor Bd. for an addition to Elevator No. 1 having a capacity of 1,500,000 bu.

Guelph, Ont.—Kawneer Mfg. Co., Bathurst St., Toronto, will erect a factory 40 x 500 ft., for the manufacture of art metal mouldings for store fronts, etc.

Hamilton, Ont.—An addition is to be erected to the passenger car department of the plant of the National Steel Car Co.

Proctor & Gamble, Cincinnati, O., propose erecting a branch plant here; cost, $250,000.

Vancouver, B. C.—Bids reported desired until Sept. 1 by Dominion Shipbuilding & Drydock Co., 14 Canada Life Bldg., for constructing all buildings at proposed $3,500,000 drydock in North Vancouver.

MISCELLANEOUS.

Items Arranged Geographically

See also "Hydraulic Construction and River Improvements."

Coal Pocket—Ft. Williams, Me.—Bids opened July 29 by Capt. C. O. Zollare, Constructing Q. M., for concrete coal pocket at Ft. Williams and lowest bids were submitted as follows: Forgione & Romano, Portland, Me., for 60 x 90-ft., $13,722 or 50 x 90-ft., $12,922, to be completed in 120 days; Simpson Bros. Corp., Boston, Mass., bid on their own plans $10,430 and would complete in 90 days.

Seats in Stock Pavilion, Ithaca, N. Y.—Bids desired until Aug. 24 by E. L. Williams, Treas. Cornell Univ., Ithaca, for erection of seats in stock judging pavilion of N. Y. State College of Agriculture, Cornell Univ. Advertised in Engineering Record. Green & Wicks, Archts., 119 Franklin St., Buffalo.

Borings for Court House Site—New York, N. Y.—See "Public Buildings and Schools."

Fire Alarm Telegraph Extension—New York, N. Y.—Bids desired until Aug. 17 by Fire Commissioner for constructing an extension to the fire alarm telegraph system.

Boiler Feed Pump—Philadelphia, Pa.—Bids desired until Aug. 11 by Lieut. Col. Cyrus S. Radford, Asst. Q. M. U. S. Marine Corps in charge of Depot of Supplies, Philadelphia, for one boiler feed pump, to be single cylinder double acting, capable of applying 500 boiler h. p. at slow speed and to have not less than 8 in. steam cylinder 5¼ in. water cylinder and 12 in. stroke.

Ash Handling Apparatus—Pittsburgh, Pa.—Bids desired until Aug. 11 by Director Dept. Pub. Wks. at the office of the City Compt. for constructing coal and ash handling apparatus and appurtenances for the Brilliant Pumping Station, Contract 13-D.

U. S. Govt. Supplies—Washington, D. C.—Bids desired until Aug. 18 at Bureau Supplies and Accounts, Navy Dept., Washington, D. C., for furnishing at the Navy Yards and Naval Stations supplies as follows: Boston, Mass., Sch. 7094—Miscellaneous naval rolled round and hexagon brass; miscellaneous, not tinned, hot rolled sheet copper; miscellaneous I. P. S. brass pipe; miscellaneous seamless drawn, 16-in. lengths copper pipe. Sch. 7090—29,500 lb. galvanized sheet steel; 4000 lb. Type A, 8-in. long corrugated galvanized sheet steel. Norfolk, Va., Sch. 7101—7 iron body, brass mounted, double disk, left-handed, 4-in. gate valves; miscellaneous c. i. pipe and fittings. Newport, R. I., Sch. 7100—Miscellaneous standard weight black wrought pipe and standard weight tees, elbows and flanges. Brooklyn, N. Y., Sch. 7095—6400 ft. plain 60,000 c. m. twin-conductor wire. Sch. 7094—Miscellaneous 12-in. lengths naval bar brass. Sch. 7090—Miscellaneous Class B square, 6, 7, 8 and 12-in. bar steel; medium lengths, not over 20 in., bar steel; cold-rolled round bar steel; 39,000 lb. medium square 4, 8 and 10-in. bar steel; 61,600 lb. galvanized sheet steel. Charleston, S. C., Sch. 7090—13,100 lb. galvanized sheet steel. Sch. 7094—35 tons No. 1 and 35 tons No. 3 (2240 lb. tons) foundry pig iron. Washington, D. C., Sch. 7101—50 tons (2240 lb. tons) pig iron, etc. Applications for proposals should designate the schedules desired by number.

Cable—Washington Barracks, D. C.—Bids desired until Aug. 13 by Lieut. Col. Jos. E. Kuhn, Corps Engrs., U. S. A., for furnishing 8650 ft. lead covered armored and unarmored cable.

Subway—Cumberland, Md.—City Engr. Gaffney has been requested by Baltimore & Ohio Railroad to prepare plans for a wagon street car and passenger subway under Green St.; cost about $30,000.

Cement—Montgomery, Ala.—Bids desired until Aug. 31 by Maj. Earl I. Brown, Corps Engrs., U. S. A., Montgomery, for furnishing 20,000 bbls. American Portland Cement, advertised in Engineering Record.

Subway—Alliance, O.—City Engr. Wade Shidler will soon ask bids for construction of the Arch Ave. subway.

Lumber—Cincinnati, O.—Bids desired until Aug. 17 by City Purchasing Agent, City Hall, for furnishing yellow pine and oak bridge timbers, planking and piece stuff, delivering same to certain points in the city.

Vacuum Cleaning System—Youngstown, O.—Bids desired until Aug. 24 by Bd. Educ., for installing vacuum cleaning systems in Washington Tod Memorial and Lansingville buildings.

Culverts—Kansas City, Mo.—Bids desired until Aug. 24 by County Surveyor Kansas City, for grading and building culverts on Grain Valley and Tarsney Rd.; approximate quantities: 24,805 cu. yds. earth excav., 2985 cu. yds. solid rock excav., 155 cu. yds. plain concrete, two 4 ft. x 4 ft. concrete box culverts, and one 12 ft. open concrete culvert.

Culverts—Galveston, Tex.—Bids desired until Aug. 10 by County Aud. for constructing one 14-ft. concrete culvert near 5-mile post and one 8-ft. culvert near 6-mile post, both down the island.

★*Items marked thus give the names of parties awarded contracts.*

Culvert—San José, Cal.—Bids desired Aug. 17 for a reinforced-concrete culvert in Road Dist. No. 5 on Harwood Road, just south of Branhan Lane. J. G. McMillan, County Surveyor.

Cable, Etc. — Panama. — Bids desired until Aug. 21 at office of General Purchasing Officer, Panama Canal, Washington, D. C., for Cir. 864—Steel cable, pipe fittings, etc.

Shell Hoists, Etc. — Panama. — See "Water Works."

Lumber—Panama.—Bids desired until Aug. 11 by Purchasing Officer, Panama Canal, Washington, D. C., for furnishing yellow pine and lumber. Circular 864-A.

Steel Castings—Philippine Islands—Bids were opened July 30 by Col. S. W. Roessler, Corps Engrs., U. S. A., Army Bldg., New York, for steel castings for Philippine Islands: Penn Steel Castings & Machine Co., Chester, Pa., $10,175; Midvale Steel Co., Philadelphia, Pa., $19,785; Baldt Steel Co., New Castle, Del., $8,995; Union Steel Casting Co., 62d & Butler Sts., Pittsburgh, Pa., $9,870; American Steel Foundries, Chester, Pa., $9,430; Federal Steel Fdry Co., Chester, Pa., $8,995 (lowest bid); Bethlehem Steel Co., South Bethlehem, Pa., $11,912; United Eng'g & Fdry. Co., Pittsburgh, Pa., $9,120.

Proposals

For Proposals Advertised see Pages 42, 43 and 44.

WATERWORKS.

Bids Close.		See Eng. Record
Aug. 10.	Pipe, Reservoir, Etc., Webster, Mass. Adv. Aug. 1.	Aug. 1
Aug. 10.	C.-I. Pipe, St. Paul, Minn	Aug. 8
Aug. 11.	Waterworks, Kansas, Ill.	Aug. 1
Aug. 11.	Water Add., Estherville, Ia.	Aug. 1
Aug. 11.	Water Wks., Wayne, Neb. Adv. Aug. 1.	Aug. 1
Aug. 11.	Alum Plant, Columbus, O.	Aug. 1
Aug. 11.	Pump, Blairsville, Pa.	Aug. 8
Aug. 11.	Extension, Knoxville, Ia.	Aug. 8
Aug. 11.	Pump Engine, Montreal, Que.	Aug. 8
Aug. 11.	Water Wks., Humeston, Ia.	Aug. 8
Aug. 11.	Pumping Engine, Montreal, Que.	Aug. 8
Aug. 12.	Tank, Pekin, Ill. Adv. July 25.	July 2
Aug. 13.	Well, New Ulm, Minn.	Aug. 8
Aug. 14.	Well, Aurora, Ill.	Aug. 1
Aug. 14.	Water Wks., Palmyra, Neb.	Aug. 1
Aug. 14.	Waterworks, Larned, Kan.	Aug. 1
Aug. 14.	Improvements, Sycamore, O.	Aug. 8
Aug. 15.	Pumps, Etc., Prince Albert, Sask.	July 2
Aug. 15.	Well, Little York, Ill.	Aug. 8
Aug. 17.	Pumps, Panama	Aug. 8
Aug. 18.	Water Wks., Canora, Sask.	Aug. 1
Aug. 19.	Contr. 7, Nepaug Reservoir, Hartford, Conn. Adv. Aug. 1, 8.	Aug. 1
Aug. 19.	Well, Ada, Minn.	Aug. 8
Aug. 25.	Water Wks., Riverhead, N. Y. Adv. Aug. 8.	Aug. 8
Aug. 27.	Works, Dalton, Neb.	June 13
Sep. 5.	Equipment for Filter, Dennison, Tex.	Aug. 8
Sep. 19.	Aqueduct, Winnipeg, Man.	July 2

SEWERAGE AND SEWAGE DISPOSAL.

Bids Close.		See Eng. Record
Aug. 10.	Bridgeport, Conn. Adv. Aug. 1.	Aug. 1
Aug. 11.	Akron, O. Adv. July 25, Aug. 1.	July 2
Aug. 11.	The Pas, Man.	July 2
Aug. 11.	St. Paul, Minn.	Aug. 8
Aug. 11.	Gloversville, N. Y.	Aug. 8
Aug. 12.	Boston, Mass.	Aug. 8
Aug. 13.	Cleveland, O. Adv. Aug. 1, 8.	Aug. 1
Aug. 14.	Chariton, Ia.	Aug. 1
Aug. 14.	Centerburg, O.	Aug. 8
Aug. 15.	Burlington, Ia.	Aug. 1
Aug. 15.	Woodsfield, O.	Aug. 8
Aug. 15.	Astoria, Ore.	Aug. 8
Aug. 15.	Racine, Wis.	Aug. 8
Aug. 17.	Canton, O.	July 25
Aug. 17.	Lidgerwood, N. D.	Aug. 8
Aug. 17.	Dallas, Ore.	Aug. 8
Aug. 18.	New London, Wis.	Aug. 1
Aug. 18.	Sheridan, Wyo. Adv. Aug. 8.	Aug. 8
Aug. 18.	New York, N. Y.	Aug. 8
Aug. 18.	Billings, Mont.	Aug. 8
Aug. 18.	Sandusky, O.	Aug. 8
Aug. 25.	Enterprise, Ore.	Aug. 8
Aug. 25.	Argenta, Ark.	Aug. 8
Aug. 26.	Greencastle, Ind. Adv. Aug. 8.	Aug. 8
Aug. 27.	Warroad, Minn.	Aug. 1
Sep. 1.	Bowling Green, O.	Aug. 1
Sep. 7.	San Antonio, Tex. Adv. Aug. 1, 8.	Aug. 1

BRIDGES.

Bids Close.		See Eng. Record.
Aug. 11.	Wyoming, Pa.	Aug. 1
Aug. 11.	North Braddock, Pa.	Aug. 8
Aug. 11.	Pottsville, Pa.	Aug. 8
Aug. 11.	Shakopee, Minn.	Aug. 8
Aug. 12.	Lindsborg, Kan.	Aug. 1
Aug. 12.	Hamilton, O.	Aug. 1
Aug. 12.	Crystal Falls, Mich.	Aug. 1
Aug. 12.	Pentwater, Mich.	Aug. 8
Aug. 12.	Youngstown, O.	Aug. 8
Aug. 12.	Mora, N. M.	Aug. 8
Aug. 13.	Baltimore, Md. Adv. Aug. 1, 8.	Aug. 1
Aug. 14.	Philadelphia, Pa.	Aug. 8
Aug. 15.	Toronto, Ont.	July 18
Aug. 15.	Dewey, Utah Adv. Aug. 8.	Aug. 8
Aug. 15.	Bloomsburg, Pa.	Aug. 8
Aug. 15.	St. Helens, Ore. Adv. Aug. 8.	Aug. 8
Aug. 15.	Delaware, O.	Aug. 8
Aug. 16.	New London, Wis.	Aug. 8
Aug. 17.	New Philadelphia, O.	July 25
Aug. 17.	Mankato, Minn.	Aug. 8
Aug. 17.	Minneapolis, Minn.	Aug. 8
Aug. 17.	Greenville, Pa.	Aug. 8
Aug. 17.	San José, Cal.	Aug. 8
Aug. 17.	Mound City, Kan.	Aug. 8
Aug. 19.	London, O.	Aug. 1
Aug. 20.	Kansas City, Mo.	Aug. 1
Aug. 21.	Sunbury, Pa.	Aug. 8
Aug. 21.	Cincinnati, O.	Aug. 8
Aug. 21.	Idaho Falls, Idaho	Aug. 8
Aug. 21.	Iowa City, Ia.	Aug. 8
Aug. 22.	Wapakoneta, O.	Aug. 8
Aug. 24.	Bowman, Ga.	July 18
Aug. 24.	Erie, Kan	Aug. 8
Aug. 24.	Kansas City, Mo.	Aug. 8
Aug. 25.	Albany, N. Y.	Aug. 8
Aug. 25.	Butler, Pa. Adv. Aug. 8.	Aug. 8
Aug. 25.	Indianapolis, Ind.	Aug. 8
Aug. 26.	Calgary, Alta. Adv. Aug. 8.	Aug. 8
Aug. 28.	Cincinnati, O.	Aug. 8
Aug. 29.	Santa Fé, N. M.	Aug. 8
Aug. 31.	Seattle, Wash.	July 25
Sep. 7.	Glasgow, Mont.	Aug. 1
Sep. 7.	Medora, N. D.	Aug. 8
Oct. 5.	Toronto, Ont	Aug. 1

PAVING AND ROADS.

Bids Close.		See Eng. Record.
Aug. 11.	Illinois	Aug. 1
Aug. 11.	La Crosse, Wis.	Aug. 1
Aug. 11.	Covina, Cal.	Aug. 1
Aug. 11.	Seattle, Wash.	Aug. 1
Aug. 11.	Logan, Utah	Aug. 1
Aug. 11.	Illinois	Aug. 8
Aug. 11.	Lincoln, Neb.	Aug. 8
Aug. 11.	Towson, Md.	Aug. 8
Aug. 12.	Green Bay, Wis.	Aug. 1
Aug. 12.	La Rue, O.	Aug. 1
Aug. 12.	Philadelphia, Pa.	Aug. 8
Aug. 12.	Verona, Pa.	Aug. 8
Aug. 12.	Terry, Mont.	Aug. 8
Aug. 12.	Cincinnati, O.	Aug. 8
Aug. 12.	Indiana	Aug. 8
Aug. 13.	Ft. Bliss, Tex. Adv. July 25, Aug. 1.	July 25
Aug. 13.	Ft. Stockton, Tex.	Aug. 1
Aug. 13.	Waldo, O.	Aug. 8
Aug. 13.	Spokane, Wash.	Aug. 8
Aug. 14.	Defiance, O.	July 25
Aug. 14.	Cincinnati, O.	Aug. 1
Aug. 14.	Spencerville, O.	Aug. 1
Aug. 14.	Reedsburg, Wis.	Aug. 8
Aug. 14.	Cambridge, O.	Aug. 8
Aug. 14.	Centerburg, O.	Aug. 8
Aug. 14.	Indiana	Aug. 8
Aug. 15.	Urichville, O.	Aug. 8
Aug. 15.	Lake Villa, Ill.	Aug. 8
Aug. 17.	Eutaw, Ala.	Aug. 1
Aug. 17.	Seattle, Wash.	Aug. 1
Aug. 17.	Cleveland Heights, O.	Aug. 8
Aug. 17.	Bloomfield, N. J.	Aug. 8
Aug. 17.	Linden, N. J.	Aug. 8
Aug. 17.	Albany, N. Y.	Aug. 8
Aug. 17.	Kansas City, Mo.	Aug. 8
Aug. 18.	Marion, Ala.	Aug. 1
Aug. 18.	Elizabeth, N. J.	Aug. 8
Aug. 18.	Marion, Ala.	Aug. 8
Aug. 18.	Lorain, O.	Aug. 8
Aug. 18.	Connecticut	Aug. 8
Aug. 18.	Philadelphia, Pa.	Aug. 8
Aug. 18.	Washington, D. C. Adv. Aug. 8.	Aug. 8
Aug. 18.	Columbus, O.	Aug. 8
Aug. 18.	Ridgefield Park, N. J. Adv. Aug. 8.	Aug. 8
Aug. 18.	New York, N. Y.	Aug. 8
Aug. 19.	Centerville, Ala.	Aug. 1
Aug. 19.	Hartford, Conn. Adv. Aug. 1.	Aug. 1
Aug. 19.	Illinois	Aug. 8
Aug. 20.	Sulphur Springs, Tex.	Aug. 1
Aug. 20.	Kansas City, Mo.	Aug. 1
Aug. 20.	Painesville, O.	Aug. 8
Aug. 21.	Louisville, Ky.	Aug. 8
Aug. 21.	Yankton, S. D.	Aug. 8
Aug. 24.	Hackensack, N. J.	Aug. 1
Aug. 24.	Mooresville, N. C.	Aug. 1
Aug. 24.	California	Aug. 8
Aug. 24.	Milford, Ind.	Aug. 8
Aug. 24.	Indiana	Aug. 8
Aug. 25.	Smithfield, O.	Aug. 8
Aug. 25.	Auburn, Neb.	Aug. 8
Aug. 27.	Wheeling, W. Va.	Aug. 8
Aug. 31.	Indiana	Aug. 8
Sep. 1.	Hood River, Ore.	Aug. 8
Sep. 8.	Indiana	Aug. 8
Sep. 15.	Indiana	Aug. 8

HYDRAULIC CONSTRUCTION AND RIVER IMPROVEMENTS.

Bids Close.		See Eng. Record.
Aug. 10.	Machinery for Locks, Etc., Seattle Wash. Adv. July 11 to Aug. 1.	July 11
Aug. 11.	Levee, St. Louis, Mo.	July 18
Aug. 11.	State Canal Work, Albany, N. Y. Adv. July 18 to Aug. 1.	July 18
Aug. 11.	Jetty, Steveston, B. C.	July 18
Aug. 11.	Ditch, Slayton, Minn.	July 25
Aug. 11.	Drainage, Forest City, Ia.	Aug. 1
Aug. 11.	State Canal Work, Albany, N. Y.	Aug. 8
Aug. 11.	Wharf, New Castle, Del.	Aug. 8
Aug. 12.	Dredging, Galveston, Tex. Adv. July 18 to Aug. 8.	July 18
Aug. 12.	Dam, Gonzales, Tex. Adv. Aug. 1, 8.	Aug. 1
Aug. 12.	Levee, Terre Haute, Ind.	Aug. 1
Aug. 12.	Irrigation Work, Montrose, Colo.	Aug. 8
Aug. 12.	River Improvement, Rochester, N. Y.	Aug. 8
Aug. 12.	Levee Work, New Orleans, La.	Aug. 8
Aug. 12.	River Improvement, Tacoma, Wash.	Aug. 8
Aug. 13.	Breakwater, West Cove, N. S.	Aug. 1
Aug. 13.	Irrigation Work, Delta, Colo.	Aug. 8
Aug. 13.	Irrigation Work, Phoenix, Ariz.	Aug. 8
Aug. 14.	Breakwater, Buffalo, N. Y. Adv. July 25 to Aug. 8.	July 25
Aug. 14.	Pier Improvement, New York, N. Y.	Aug. 8
Aug. 15.	Riprap, Galveston, Tex. Adv. July 25 to Aug. 8.	July 25
Aug. 17.	Irrigation Work, Phoenix, Ariz. Adv. July 11 to 25.	July 11
Aug. 17.	Ditch, Onawa, Ia. Adv. Aug. 1, 8.	Aug. 1
Aug. 17.	Concrete Wall, San Jose, Cal.	Aug. 1
Aug. 17.	Trent Canal, Petersborough, Ont.	Aug. 8
Aug. 17.	Channel Work, San José, Cal.	Aug. 8
Aug. 18.	Drainage, Indianola, Miss.	Aug. 1
Aug. 18.	Dredging, Wilmington, Del. Adv. Aug. 8.	Aug. 8
Aug. 18.	Drainage Work, Sac City, Ia.	Aug. 8
Aug. 19.	Tunnel and Appurtenances, San Francisco, Cal. Adv. July 11.	July 11
Aug. 24.	Irrigation, Phoenix, Ariz. Adv. Aug. 1, 8.	Aug. 1
Aug. 25.	Cement, St. Catherines, Ont.	Aug. 8
Aug. 25.	State Canal Work, Albany, N. Y.	Aug. 8
Aug. 26.	Breakwater, St. John, N. B.	July 18
Aug. 26.	Drainage Pump Plant, Pekin, Ill.	Aug. 8
Aug. 27.	Head House on Pier, Chicago, Ill	Aug. 1
Aug. 31.	Wharf, Kensington, Ont.	Aug. 8
Aug. 31.	Wharf, Hamilton, Ont.	Aug. 8
Sep. 8.	Dredging, Wilmington, N. C. Adv. Aug. 8.	Aug. 8
Sep. 9.	Graving Dock, San Francisco, Cal. Adv. Aug. 1, 8.	Aug. 1
Oct. 2.	Drainage Canal Work, New Orleans, La. Adv. Aug. 8.	Aug. 8
——	Drain, Ft. Dodge, Ia. Adv. June 27, July 4.	June 27

POWER PLANTS.

Bids Close.		See Eng. Record.
Aug. 11.	Estherville, Ia.	Aug. 1
Aug. 14.	Larned, Kan.	Aug. 1
——	Luna Park, Coney Island, N. Y. Adv. July 18.	July 18

PUBLIC BUILDINGS AND SCHOOLS.

Bids Close.		See Eng. Record.
Aug. 11.	Detroit, Mich.	Aug. 1
Aug. 11.	Macedonia, O.	Aug. 1
Aug. 11.	Lead, S. D.	Aug. 1
Aug. 11.	High River, Alta.	Aug. 1
Aug. 11.	Baltimore, Md.	Aug. 1
Aug. 11.	Cleveland, O.	Aug. 1
Aug. 11.	Portsmouth, N. H.	Aug. 8
Aug. 11.	Wilmington, Del. Adv. Aug. 8.	Aug. 8
Aug. 11.	Toronto, Ont.	Aug. 8
Aug. 11.	New York, N. Y.	Aug. 8
Aug. 11.	Dundee, Neb.	Aug. 8
Aug. 12.	Georgetown, Ky.	July 18
Aug. 12.	Park City, Utah	Aug. 1
Aug. 12.	Cameron, Mo.	Aug. 8
Aug. 12.	Boston, Mass.	Aug. 8
Aug. 12.	Amherst, Mass.	Aug. 8
Aug. 13.	St. Paul, Minn.	Aug. 1
Aug. 13.	Ft. Wayne, Ind.	Aug. 1
Aug. 13.	Mechanicville, N. Y.	Aug. 1
Aug. 13.	Elizabeth, N. J.	Aug. 8
Aug. 14.	Milwaukee, Wis.	July 18
Aug. 14.	Milwaukee, Wis.	July 25
Aug. 14.	Terrill, Ia.	Aug. 1
Aug. 14.	Brooklyn, N. Y.	Aug. 8
Aug. 14.	Philadelphia, Pa.	Aug. 8
Aug. 14.	Dunkirk, N. Y.	Aug. 8
Aug. 14.	Mahtomedi, Minn.	Aug. 8
Aug. 14.	Rittman, O.	Aug. 8
Aug. 14.	Lancaster, Mass.	Aug. 8
Aug. 15.	Pearl City, T. H.	Jun. 27
Aug. 15.	Barnesville, Minn.	Aug. 1
Aug. 15.	Rhinelander, Wis.	Aug. 1
Aug. 17.	Marion, O.	Aug. 1
Aug. 17.	Sargent, Neb.	Aug. 1
Aug. 17.	Columbus, O.	Aug. 1
Aug. 17.	Gallipolis, O.	Aug. 1
Aug. 17.	Millburn, N. J.	Aug. 1
Aug. 17.	Jacksonboro, O.	Aug. 8
Aug. 17.	Milwaukee, Wis.	Aug. 8
Aug. 17.	Alliance, O.	Aug. 8
Aug. 17.	New York, N. Y.	Aug. 8
Aug. 17.	Rochester, N. Y.	Aug. 8
Aug. 17.	Brainerd, Minn.	Aug. 8
Aug. 18.	Springfield, Ill.	July 25
Aug. 18.	Elgin, Ill.	Aug. 1
Aug. 18.	Lima, O.	Aug. 1
Aug. 18.	Cleveland, O.	Aug. 1
Aug. 19.	Louisville, Ky.	Aug. 1
Aug. 19.	Columbus, O.	Aug. 8
Aug. 20.	Paoli, Ind.	July 18
Aug. 20.	Monticello, Fla.	Aug. 1
Aug. 20.	Wooster, O. Adv. Aug. 8.	Aug. 1
Aug. 20.	Salem, O.	Aug. 1
Aug. 20.	Buffalo, N. Y.	Aug.
Aug. 20.	Put-in-Bay, O.	Aug.
Aug. 21.	Williamsport, Pa.	Aug.
Aug. 20.	Kansas City, Mo.	Aug.
Aug. 22.	Medford, Ore.	July
Aug. 24.	Bedford, Pa.	July
Aug. 24.	Rochester, N. Y.	Aug.
Aug. 24.	Van Cleve, Ia.	Aug.
Aug. 24.	Leesburg, Fla.	Aug.
Aug. 24.	Columbus, O.	Aug.
Aug. 24.	West Long Branch, N. J.	Aug.
Aug. 24.	Ottawa, Ont.	Aug.
Aug. 24.	Campbellford, Ont.	Aug.
Aug. 25.	Eureka, Cal.	July
Aug. 25.	New Brighton, N. Y.	Aug.
Aug. 25.	Indianpolis, Ind.	Aug.
Aug. 25.	Cincinnati, O.	Aug.
Aug. 25.	Smethport, Pa.	Aug.
Aug. 25.	Columbus, O.	Aug.
Aug. 26.	Tupelo, Miss.	July
Aug. 26.	Marysville, O.	Aug.
Aug. 28.	Toronto, Ont.	Aug.
Aug. 29.	Mt. Healthy, O.	Aug.
Aug. 29.	Glenwillow, O.	Aug.
Aug. 31.	Upper Alton, Ill.	Aug.
Aug. 31.	Port Stanley, Ont.	Aug.
Aug. 31.	Dunning, Ill.	Aug.
Aug. 31.	San Juan, P. R.	Aug.
Sep. 1.	Cincinnati, O.	July
Sep. 1.	Marinette, Wis.	Aug.
Sep. 1.	Albany, N. Y.	Aug.
Sep. 1.	Sisseton, S. D.	Aug.
Sep. 2.	Fulton, Ky.	Aug.
Sep. 3.	Winfield, Kan.	Aug.
Sep. 8.	Bakersfield, Cal.	Aug.
Sep. 8.	Canal Dover, O. Adv. Aug. 8.	Aug.
Sep. 9.	Holland, Mich.	Aug.
Sep. 14.	Port Jervis, N. Y.	Aug.
Sep. 14.	Hudson, O.	Aug.

PRIVATE BUILDINGS.

Bids Close.		See Eng. Record.
Aug. 11.	Hastings, Neb.	Aug.
Aug. 17.	Ames, Ia.	Aug.
Aug. 17.	Ruthven, Ia	Aug.
Aug. 17.	Streator, Ill.	Aug.
Aug. 18.	Hazen, Ark.	Aug.
Aug. 29.	Pearl City, T. H.	Aug.
Aug. 31.	Pittsburgh, Pa.	Aug.

NEW INDUSTRIAL PLANTS.

Bids Close.		See Eng. Record.
Aug. 13.	Seattle, Wash.	July
Aug. 14.	St. Paul, Minn.	Aug.
Aug. 20.	Seattle Wash. Adv. July 18 to Aug. 1.	July
Sep. 1.	Vancouver, B. C.	Aug.

MISCELLANEOUS.

Bids Close.		See Eng. Record.
Aug. 10.	Lockers for Armory, Albany, N. Y. Adv. July 25 to Aug. 8.	July
Aug. 11.	U. S. Govt. Supplies.	
Aug. 11.	Boiler Feed Pump, Philadelphia, Pa.	Aug.
Aug. 11.	Lumber, Panama	Aug.
	Washington, D. C.	July
Aug. 12.	Steel Barges, New Orleans, La. Adv. July 18 to Aug. 1.	July
Aug. 13.	Wire and Cable, New Orleans, La.	Aug.
Aug. 13.	El. Ry. Work, Boston, Mass. Adv. Aug. 1.	Aug.
Aug. 13.	Tunnel, Boston, Mass. Adv. Aug. 1, 8.	Aug.
Aug. 13.	Cable, Washington Barracks, D. C.	Aug.
Aug. 17.	Pump, Etc., from Dredge For Sale, Jacksonville, Fla. Adv. July 18 to Aug. 8.	July
Aug. 17.	Causeway, Corpus Christi, Tex.	July
Aug. 17.	Lumber, Etc., Cincinnati, O.	Aug.
Aug. 17.	Culvert, San José, Cal.	Aug.
Aug. 17.	Shell Hoists, Etc., Panama	Aug.
Aug. 17.	Extension to Fire Alarm Telegraph, New York, N. Y.	Aug.
Aug. 18.	Coal and Ash Handling Apparatus, Toronto, Ont. Adv. June 27 to July 18.	July
Aug. 18.	U. S. Govt. Supplies, Washington, D. C.	Aug.
Aug. 20.	Memorial, Washington, D. C. Adv. July 25 to Aug. 8.	July
Aug. 20.	Fish Hatchery, Put-in-Bay, O.	Aug.
Aug. 21.	Culverts, Toledo, O.	Aug.
Aug. 21.	El. Ry. Work, Brooklyn, N. Y. (2 Prop.) Adv. Aug. 8	Aug.
Aug. 21.	Cable, Etc., Panama	Aug.
Aug. 21.	El. Ry., Brooklyn, N. Y. Adv. Aug. 8.	Aug.
Aug. 22.	Electric Rys., Hopkinsville, Ky.	Aug.
Aug. 24.	Vacuum Cleaning System, Youngstown, O.	Aug.
Aug. 24.	Culverts, Kansas City, Mo.	Aug.
Aug. 24.	Seats in Stock Pavilion, Ithaca, N. Y. Adv. Aug. 8.	Aug.
Aug. 25.	Fence, Etc., Cincinnati, O.	Aug.
Aug. 29.	Coal Hoisting Tower, San Diego, Cal.	Aug.
Aug. 31.	Cement, Montgomery, Ala. Adv. Aug. 1, 8.	Aug.
Sep. 1.	Crane, Seattle, Wash. Adv. July 11 to 18.	July
Sep. 10.	Electric Ry., Healdsburg, Cal.	Aug.
Oct. 16.	Garbage Disposal, Philadelphia, Pa.	Aug.
——	R.R. Work, Winnipeg, Man. Adv. July 11 to 18.	Jun. 2

★*Items marked thus give the names of parties awarded contracts.*